



Reviewing design methods to make them more sensitive to gender

1. Introduction



In June 2019, the Scottish Government accepted a recommendation from the National Advisory Council for Women and Girls (NACWG) to "Embed gender sensitive approaches in all work relating to programmes developed through the new Scottish Government 'Scottish Approach to Service Design' (SAtSD) model".

Scottish Government's Office of the Chief Designer, which is developing the SAtSD, provides guidance to help those involved in developing and delivering public services embed design processes in their work.

As a first step towards implementing the NACWG's recommendation, the Office of the Chief Designer undertook a review of its design and research methods and concluded that these are not sufficiently gender sensitive. For example, these methods do not take into account barriers that may prevent certain user groups such as women and girls from participating in user-centred design activities. Furthermore, these design methods do not take an intersectional approach to participation. This means that they are not suitably equipped to uncover insights that can help design inclusive and accessible services.

To address this, Office of the Chief Designer carried out desk research to identify best practice that helps design practitioners make it easier for women and girls to engage with their work. This report summarises key findings from the desk research and presents ideas that can help design practitioners involve women and girls from a variety of backgrounds in their work. This allows the seldom heard voices of women and girls to inform good service design.

2. Scope



This report has been produced in response to the recommendation from the NACWG, and is geared at inclusive design practices looking at meaningfully engaging and involving women and girls in the overall design process, as highlighted by SAtSD. This report summarises best practice in terms of design methods.

Design methods are procedures, techniques, aids, or tools for designing products or services. They offer a number of different kinds of activities that a designer might use within an overall design process. Choosing the right design methods allows user-centred design professionals to engage with the right audience, and uncover useful insights that underpin the overall development and delivery of a service.

User-centred design methods such as running research and data collection exercises, help capture users' perspectives that will directly shape the outcome of a design project. By making sure our design methods are inclusive and sensitive to gender-based issues, we can significantly increase the ability of women and girls to meaningfully participate in our design work, improving the quality of our public services. This seemingly small intervention can have a lasting and transformative effect on how public services are designed in Scotland by incorporating a gender perspective into service design and delivery.

It is important to highlight that pulling together existing best practice is only the first step in designing services that are sensitive to gender. More needs to be done, particularly in terms of gender mainstreaming. Though focusing on best practice to involve women and girls in user-centred design methods, this review also considers other intersectional elements such as disability, ethnicity, poverty, and migration wherever possible.

A parallel stream of work commissioned by the Office of the Chief Designer is reviewing and testing inclusive design methods to meaningfully involve disabled people in design activities. Relevant findings will be brought together in the SAtSD guidance.

3. Approach



To understand what work has already been done in this area, books and online articles that discussed gender inclusive design methods were consulted. Each resource consulted was examined for any barriers to involving women and girls in design work, alongside any suggestions on how to overcome those barriers. To keep the investigation within scope, researchers reflected on each barrier, its impact on user-centred design ways of working, and potential opportunities to embed best practice. A full list of the resources consulted has been provided at the end.

To keep the desk research aligned to the overall goal of making design methods more sensitive to gender, an advisory group comprising members from the third sector, the educational sector, the health sector, and Scottish Government's relevant policy areas was set up. Some members of the advisory group are also part of the NACWG, and that helped keep the desk research's goals aligned to the overall objectives of the NACWG. This group acted as 'critical friends' and provided overall guidance and direction to this programme of work.

It is noteworthy, that this report does not cover the full breadth of the observations, advice, and recommendations given by the advisory group. In addition to helping critique the desk research, the advisory group also provided helpful advice on gender mainstreaming, intersectionality, and overall equality and inclusion. Therefore, this work inspired other areas of work, such as revision of the guidance being written in the playbook to make it more sensitive to gender. Feedback and concerns raised by the advisory group allowed us to consider how to feed these into policy-making more generally.

4. Key findings



Findings below represent a generalised view of problems that affect women and girls. Each individual is different and their own personal circumstances determine how each of these problem areas affect them. The outcomes of this research can be broadly categorised into two parts. Firstly, these findings raise awareness of the gender-based issues that impact public service design and delivery, and are therefore relevant to anyone working in that area. Secondly, these findings can offer pointers to best practice and tools that can help reduce the risk of excluding the voices of women and girls in design activities.

Each of the 16 tables below highlight an observation from the desk research which represents a problem area/barrier for women and girls to participate in user-centred design work. For each problem area, these tables provide a reflection on how these problem areas could affect user-centred design practice, followed by corresponding suggestions for embedding best practice to make design methods more sensitive to the needs of women and girls.

4.1 Affordability and availability

What does this mean for user-centred design?
 This impacts their availability to participate in non-essential tasks such as design research activities.
 Participating in design activities can affect women financially because they have less disposable incomes.
 Affordability is a barrier in participating. Having to spend money up front and then claim it back is not an option for many women from poorer socioeconomic backgrounds.
 Due to their busy schedules (unpaid care, sometimes in addition to the 'day job') they may be less likely to come across our calls for participation and recruitment efforts.

- Doing research/design work at a time convenient to those with care responsibilities.
- Researchers being able to pay travel/care costs up front or to ensure that there is a mechanism to pay for costs without the participant having to claim back.
- Suitably recompensing women and girls for their participation. Discussing with their teams whether it is possible to develop a policy where women and girls are incentivised more in comparison to their male counterparts to participate in design research.
- Minimising their travel. Doing research/design work remotely or at a location of their preference. This needs to be considered
 carefully as research shows that women from certain backgrounds (poorer, low-levels of education, etc.) can be less comfortable with
 digital technologies.
- Arranging childcare to allow for participation. If doing group sessions, hiring venues with crèche facilities or getting 'pop-up' crèche organisations. There are initiatives such as The Westway Popup Crèche community project that offer this service.
- Understanding that children or cared for adults may be present or in some sessions (where appropriate) as care was not available, and planning accordingly.

4.2 Power imbalance

What is the problem area?	What does this mean for user-centred design?
Women are under-represented in positions of power.	 Those commissioning design work and/or acting on insights, may not be women, and therefore male bias may dictate the aims and objectives as well as the outcomes of a design project (knowingly or unknowingly).
There is also a power imbalance between user-centred design professionals and their participants (in this case women and girls).	 It is common for strategies which aim to include women's voices to involve engaging with women on a particular policy or service design issue. However, this does not allow women to define their own problems, but rather presents a problem to them, and seeks input on the solution.
Opportunities for embedding best practice	

- Running a session about bias at the start of all design projects, and ensuring gender bias is called out.
- Incorporating a gender balanced view in important decision points in a design project such as sampling, recruitment (intersectionality), collaborative sense-making.
- Agenda setting, i.e. involving women early on for meaningful participation where they are involved in surfacing what issues affect them, many of which may not be immediately obvious or known to designers and policymakers.
- Digital storytelling has been used by students from Middlesex University as a feminist approach to research via a 2-day workshop that allowed migrant women to record their stories using digital tools in a facilitated environment.

4.3 Crime and domestic abuse/sexual violence

What is the problem area?	What does this mean for user-centred design?
Women are less likely to feel safe when travelling in the dark on their own. The majority of women and girls are believed to have experienced sexual abuse/harassment.	 Sessions can take place in the dark, especially in the winter months.
	 Women researchers and designers need to be safe themselves when travelling to conduct design research sessions.
	 Consideration of the gender of the researcher, and ratio of genders if a workshop or home visits is important.
Opportunities for embedding best practice	

- Minimising the need for women (participants and researchers) to travel such as by conducting sessions remotely.
- If research/design sessions have to occur when it is dark/out of office hours, they should be held where participants feel safe.
- Following the home visit guidance for researcher safety provided by the Office of the Chief Designer. For example, checking-in and check-out with team before and after a home visit, asking participants if they have a gender preference of researchers, etc.).
- Check with participants about their comfort levels around the gender of researchers and the ratio of gender if there are multiple researchers. Two males showing up to a lone woman's house could be intimidating dependent on the woman's experience.

4.4 Gender in context

What is the problem area? What does this mean for user-centred design? Participants from certain ethnic groups may not be able to engage with research and design work in group settings. For example, women from conservative Asian Muslim families may Gender in context - Intersectionality in terms of ethnicity, disability, not be able to travel on their own for participating in research income, living in deprived areas, immigration status and sexual and design sessions, or may not be comfortable in the presence orientation further restricts women's participation in other of a male researcher. activities. Participants living in poverty might not be able to afford participating in user-centred design work. This includes costs of travel. Opportunities for embedding best practice

- Researchers to have sound knowledge on intersectionality, anti-discriminatory practice and the PCS (Personal, Cultural and Structural) model of discrimination.
- Minimising their travel. Doing research/design work remotely or at a location of their preference.
- Giving participants an opportunity to highlight their preference in terms of gender-composition of the team interacting with them.
- Establishing links with 'gatekeepers' to communities such as key charities, academics, or other organisations and doing research via them.
- Taking an ethnographic approach suitably recompensing them for their participation, minimising their travel by doing research and design work in their locality, reaching out to those living in poverty and deprived areas early on to establish trust and communicate the aims and objectives of the project, and how they can help.
- Remote ethnography establishing links with gatekeepers of these communities and working with them to teach basic video recording skills, diary placements, or insights logging via apps (whichever appropriate).
- Pre-briefing sessions provide an opportunity to establish rapport and explain the context a bit better in advance of the actual session.

4.5 Data gap

What is the problem area?	What does this mean for user-centred design?
The lack of data (intersectional) on where the most disadvantaged women and girls are, and how to reach them.	 Not having sufficient or reliable data on where the most disadvantaged women and girls might be based causes issues in terms of planning, recruitment, and running design sessions with them.

- Create an intersectional recruitment strategy for the project/product you are working on to use as an evidence base/governance for accountability.
- Working with colleagues from Research Data Scotland to get better at collecting, understanding and using data related to equality and diversity.
- Working with specialist organisations and experts in the field from the third sector or academia to collect (where required) and make use of data related to issues of intersectionality.
- For example, West Midlands-based equality charity BRAP have conducted research sitting on the number 11 bus in Birmingham because its route passes through a number of poor communities.

4.6 Data assumptions

What is the problem area?	What does this mean for user-centred design?
Not collecting or segregating data by gender during analysis.	 Unless explicitly highlighted within the scope of a project, user-centred design professionals do not currently plan for collecting or analysing data segregated by in gender their projects.
	 Because gender is classed as personal data according to General Data Protection Regulation (GDPR), 2018, it requires a clear justification and rationale for collection and processing. This can dissuade user-centred design professionals from collecting it due to the fear of breaching GDPR.
	 This means that products and services being designed do not take into account differences in usage patterns and user needs based on gender.
Opportunities for embedding best practice	
 Demystifying GDPR for user-centred design professionals and highlighting the need to collect personal data such as gender. Developing robust data processing processes to ensure regulatory compliance whilst maximising the collection and utilisation of gender segregated to avoid assuming that certain user behaviours are gender agnostic. 	

4.7 Inaccessible transport

What is the problem area?	What does this mean for user-centred design?
	 Women and girls who rely on public transport for commuting may find it harder to participate in design and research activities.
Patterns of public transport planning (routes, timings, design etc.) are not designed around the needs of women and girls.	 In particular, disabled women require accessible safe space with peer support, accessible capacity building including information, briefings and practical support to consider perspectives and bring forward useful recommendations.
Opportunities for embedding best practice	

- Hold research sessions in community locations.
- Minimising the need for participants to travel by running sessions remotely.
- Wherever travel is required, utilising tools such as Office of the Chief Designer's inclusion forms and the accessibility checklist to understand participants' needs and making suitable adjustments to enable their participation.
- Reviewing expense claim policies to ensure that they don't disadvantage any particular groups such as women and girls or disabled users.
- Minimising travel by using technologies such as **Decidim**, which is a free and open source platform for citizen participation, being used across the world. Barcelona's Municipal Action Plan, which involved nearly 40,000 people was produced using Decidim.

4.8 Communicating

What is the problem area?	What does this mean for user-centred design?
Default male language and imagery in all communication. The language issue is especially prevalent in job adverts.	 To be able to engage and involve women and girls in their work, design professionals should ensure that their communication such as calls to participate in research is not gender-biased and skewed towards male participants.
Opportunities for embedding best practice	

- Reviewing recruitment briefs and calls to participate in research and design activities from a gender perspective.
- Educating the design community on gendered and gender neutral language by adapting tools such as **University of North Carolina's** guidance on gendered language.
- Adapting existing tools such as the Gender Decoder for Job Ads, that has been developed to highlight if job adverts are gender biased, to review recruitment calls and other user facing communications that are not geared at any particular gender.
- Getting an expert content and graphic design review to check gender-bias in language and content including imagery and iconography.

4.9 Caring/Nursing needs

What is the problem area?	What does this mean for user-centred design?
Not accounting for caring/nursing needs.	 User-centred design activities can often be challenging for those with caring and nursing needs (such as breast feeding). It is a legal obligation to support breastfeeding mothers.
	 This is particularly challenging in activities where participants need to collaborate with each other in real-time.
	 There is potential stigma and additional barriers linked to age around young mothers.

- Arranging care when inviting participants to design sessions. Expanding this to include all user-centred design sessions rather than just the ones that involve speaking to nursing mothers.
- Ensuring any venues used for design work have separate and safe area for caring needs such as for breastfeeding or expressing. Also, building breastfeeding friendly policies and flexibility for those who don't wish to put their baby in a crèche but want to still participate, providing a space for feeding/expressing if they wish to do so.
- Arranging childcare to allow for participation. If doing group sessions, hiring venues with crèche facilities or getting 'pop-up' crèche organisations. There are initiatives such as The Westway Popup Crèche community project that offer this service.
- Allowing 'asynchronous' ways of facilitating co-design such that even if participants are not in the same location at the same time, they are able to meaningfully contribute to the design method or activity's overall objectives.
- Considering enhanced consent/safeguarding if children are attending a session alongside the parent.

4.10 Period poverty

What is the problem area?	What does this mean for user-centred design?
The lack of availability of sanitary products and social stigma around periods.	 The anxiety around having to travel for user research when experiencing period poverty can result in women not participating in user-centred design sessions.
	 In certain situations the possibility of having male presence in user-centred design sessions when experiencing period poverty can also result in reduced participation.
Opportunities for embedding best practice	
• Ensure facilities are period positive and communicate this in the pre-information pack along with other relevant information about facilities (baby-changing, accessible toilets, PAMIS facility etc.).	

4.11 Homogeneity

What is the problem area?	What does this mean for user-centred design?	
Lack of diversity of decision-making groups.	 Insights that design professionals uncover are reviewed by other members in the team and the diversity of these groups is an important factor in how inclusive design choices are made. 	
Opportunities for embedding best practice		
Ensure that sense-making/co-creation sessions are balanced and not male dominated.		
 Providing clear, intersectional analysis (including gender) can help decision-making groups in making informed design choices in the absence of having influence over their composition. 		

4.12 Lack of clear guidance

What is the problem area?	What does this mean for user-centred design?
UCD professionals often work under pressure to deliver projects within the time and resources allocated to them.	 In their bid to deliver insights quickly, design professionals can often rely on rapid recruitment and research and design activities. Despite their bid to be as inclusive as possible, this still runs the risk of inadvertently leaving a large section of women and girls out of scope.

- Women in Agriculture (Scottish Government) have produced a checklist for their trainers and training organisations to make their agriculture training more inclusive and accessible which can be adapted for user-centred design as well. Some key points covered in this checklist are:
 - Having female researchers/facilitators available.
 - Advertise: publicise well in advance so cover can be arranged. Advertising should make it clear that all are welcome.
 - Childcare: consider local childcare facilities when choosing training locations.
 - Venue: localised training reduces travelling time. Can the training be done on a holding, or can it be delivered through a mix of online and practical sessions?
 - Timing: try to cater for family caring commitments. Do dates clash with the school holiday periods or the farming calendar? Can you offer a choice of weekday and weekend training?
- Utilising facilitation techniques to engage, and involve users using guides such as this one on how to use empathy maps.
- Create engagement/recruitment strategy that seeks intersectionality/diversity. Where this has not been achieved the researcher should create a brief report to explain the barriers they faced and what steps they took to mitigate this. (perhaps an intersectional governance structure could help with this).

4.13 Conflating sex and gender

What is the problem area?	What does this mean for user-centred design?
Lack of awareness about gender and sex amongst researchers and	 This can result in unconscious bias in all stages of design work and can result in gender dysphoria (distress a person feels due to a mismatch between their gender identity and their sex assigned at birth).
designers.	 UCD professionals are often involved in making design choices. For example, asking about the sex/gender question in a form they might be helping produce, so it is important to clarify these concepts.
Opportunities for embedding best practice	

- Getting the design community to engage with these concepts more such as through incorporating this into their personal learning plans.
- Pointing design colleagues to engaging and easy to understand pieces of communication such as **Canadian Government's Gender Based Analysis Plus' Beyond Sex and Gender micro video**.
- Collecting pronoun preferences at the start of the sessions so that design professionals know how to refer to their participants appropriately.
- Researchers should be aware that this is an area which usually brings competing interests of minority groups. Researchers should engage with peers, seniors and policy professionals from the equality unit to keep up-to-date with best practice/guidance from a legal/policy perspective in areas that they lack knowledge in.

4.14 Lack of Islamic awareness

What is the problem area?	What does this mean for user-centred design?
Not understanding the nuances of doing design work with conservative Muslim women.	 Islamic teachings prescribe behaviours based on gender that may affect how research and design activities should be carried out with women and girls.
	 There is a lot of diversity within Islam and knowing the norms of conservative Islamic women can help design practitioners think more generally about key considerations when speaking to Muslim women.

- Imperatives of research designs with Muslim women (Boulanouar et al., 2016) suggests the following best practice for each of the corresponding (more specific) barrier mentioned in the paper:
 - Research topic/subject/communication: Certain topics that are relatively more freely discussed in the 'western world' can be more sensitive to practising Muslims such as (marketing information) about gender/sex-related products, social/political groups, health and care products, and addictive products. Equally, some topics that are perceived as being sensitive in Western cultures, may not be seen as being sensitive in Islam. For example, in many western countries asking someone about their religious beliefs or affiliations is regarded as personal, this is very often not the case amongst Muslims... this is not universally true of course (e.g. in Turkey), and consideration of the specific context is necessary.
 - Location: The concepts of private and public spaces in Islam can be different to western concepts of privacy. "For example, for some respondents being seen in a café is undesirable and is uncommon cultural practice, whereas suggesting such a location (seen as 'neutral') may be quite natural to the researcher". Muslim women may prefer to be interviewed at home or the official institution such as the University. Other things to bear in mind are gaining access through someone known to the family of the respondent, preferring women researchers for women and girls and male researchers for men. Where this isn't possible, having a man and women conduct the session as a pair, although that might result in some people not participating in design work. Also, sometimes Muslim women may prefer to have someone else present in the room. This can have an effect on the dynamics and can potentially introduce 'social desirability bias' in the research. Researchers must check for this and use research techniques to minimise any bias.

- **Sampling frame:** Personal relationships and face-to-face encounters are very important in Muslim cultures. "Given this, the simplest method for recruiting interviewees may be a snowball method, based on positive word of mouth from one interviewee to the next, with some kind of relationship being crucial to get that first interview".
- Research techniques: Projection techniques which often involve the participant to 'imagine' what someone, such as their close friend might think/do/feel in a particular situation, may not be perceived to be in line with Islamic teaching. Such questions are often met with "I don't know" or "Allah knows" type of responses because conjecture/talking about others is discouraged. "Similarly, self-reporting questions aren't always usable. Consistency checks using reverse-coded questions can be employed in the research to ensure validity. The use of photographs of people as prompts is another area that can be problematic. "One interpretation of Islamic teaching is quite clear that the representations of any living creature are not acceptable. Depiction of the creation by other than the creator is prohibited in Islam". This might be relevant to a limited sample of Muslims, and understandably those least researched. "In response, researchers or advertisers interested in engaging with these women may blur the faces of models advertising clothing, or manufacture toy dolls with featureless faces, so as to meet the requirement of the teaching. Similarly, respondents may refuse to be photographed or have their homes/goods photographed especially in the case of a bedroom or clothing for the private sphere (i.e. at home amongst family)". Anonymisation increases the chances of useable data being collected. For example, some success was found in having the clothing of the respondents held up by another person and photographed in this way, allowing the owner (and wearer) of the clothing to remain anonymous.
- Women and men: "Muslim respondents are increasingly unwilling to be interviewed for media or academic research due to a fear of misrepresentation borne of either interviewer ignorance or arrogance". While having Muslim researchers interview Muslims, might seem like a natural solution, this can introduce bias in research and design activities. Although this similarity can ease some aspects of access issues, sometimes differences of race or religion in researchers and participants can result in deeper conversations where Muslim participants go into more detail to explain certain things. The issue of establishing trust and rapport is paramount in these situations.

Opportunities for embedding best practice

• Data collection methods: The concept of privacy is quite broad in Islam and it also encompasses keeping the secrets of spouses and family. This can result in certain contextual questions that are perceived by the respondent to be compromising this privacy, may not be answered, or may alter researcher's rapport with the participant. "It is often difficult to interview women (especially) alone, due to privacy concerns – but also gender separation issues if these are relevant. Similarly, it is often difficult to interviews completed "efficiently" as the nature of high context and collective cultures means that time must be taken over personal/small talk, and also refreshment and hospitality, during the appointed time". Therefore, researchers should allow for more time than they would normally consider sufficient in similar research activities with others. The paper also suggests that surveys and popup research, telephone interviews and mail-outs can have low response rates due to lack of formal introduction, gender or trustissues such as unwillingness to talk to strangers. In terms of data collection, Muslim women can class their voices as awra (private) and not to be heard by men because a recording (photo, video or audio) is akin to taking away a part of them that they lose control over, and that can make them feel vulnerable or uncomfortable. This has implications for UCD work in that men may not be allowed to be present during sessions and in this case "it requires practising taking excellent written notes!". Additionally, the use of group discussions requires careful consideration regarding gender separation as well as issues to do with recording images and videos, in addition to topic being discussed and the location of the session.

4.15 Reliance on interpreters

What is the problem area?	What does this mean for user-centred design?	
Conflating complex migratory issues as a 'language problem', trying to resolve that through interpreters.	 Migrant women may have a diverse range of needs, and using interpreters does not always get to the bottom of their needs. 	
	 Design methods should allow participants to express themselves emotionally. 	
	 Design methods need to build trust with participants. 	
	 Design professionals should be mindful of the power imbalance between researchers and attendees. This is especially pronounced when the government is doing research. 	
Opportunities for embedding best practice		
Taking an ethnographic approach wherever possible.		
 Identifying and working with gatekeepers of communities to build trust and utilise appropriate communication methods for meaningful participation in design work. 		
Design methods should take research and design activities to participants as much as possible, rather than expecting them to attend		

sessions.

4.16 Not understanding gender differences in disabilities

What is the problem area?	What does this mean for user-centred design?
More boys are diagnosed with autism than girls (even though just as many girls are autistic as boys).	 In participatory design for autistic children, girls might be under-represented.
	 Some women and girls might not be comfortable sharing their views in a group setting.

- It is sometimes better for researchers to be of the same gender as research participants.
- Don't bring up gender issues with autistic girl participants, to allow them to take the lead on these if they wish. "my lived experience, as disabled and neurodivergent, allows me to understand some issues the children might articulate with their environment from a place of similarity instead of a place of difference. This does not necessarily entail that my interpretation is in any way more appropriate than others', but it does come from a different place".
- If you are unfamiliar with certain types of disabilities and are going to working with people who have those disabilities, do some prior reading beforehand.
- Researchers should be aware of the social model of disability and adapt their sessions to be accessible for people with diverse abilities. Good planning and being aware of barriers in locations or using methods will allow the researcher to anticipate possible pain points and come up with alternative solutions.
- The 'think-pair-share' technique lets people think about a discussion point, talk through their answers with a partner, then share their answers with the whole group. This could help women/girls who lack confidence to speak out in a large group. It will also help dyslexic participants make their best contribution, especially if they are paired with a non-dyslexic person who can help them summarise/articulate their thoughts, and keep them on topic if necessary. Another variant of this is the '1-2-4-All' technique. A Nominal Group Technique (NGT) can also help in these situations.
- Design professionals should send agendas and session details in advance, and allow participants to input before, during and after the design session.

5. Next Steps



As highlighted previously in this report, reviewing existing best practice for design methods was only the first step towards making SAtSD more inclusive. Having done that, this programme of work will continue to progress in terms of making design itself more inclusive. Scottish Government's Office of the Chief Designer will invite subject matter experts and specialists in the area of Equality and Inclusion, to help critique guidance, and any other guidance being created for inclusive design (including gender).

Findings from this report will be shared with the design community to allow for reflection, testing, and iterative development of some of the best practices opportunities identified. These findings will also be communicated through training activities led and commissioned by the Office of the Chief Designer to make sure there is awareness of the issues.

Key learnings from this report and subsequent 'testing' will be incorporated into the playbook and will be revised continuously as new knowledge emerges. The Office of the Chief Designer will work closely with our policy colleagues to align our ways of working around design and equalities, constantly learning from each other.

To embed more inclusive design thinking into public service design/redesign processes, it is important to intervene early on in the process, at the planning stage itself. This avoids tokenistic and superficial engagement with those user groups that are often left out of key decisions that have an impact on their lives, and can often further disadvantage and/or cause harm to them.

Getting inclusive thinking and practices right requires subject matter expertise and experience in involving seldom heard voices in the design and delivery of key policies and services that affect them. A significant part of this expertise exists outside of Scottish Government in the form of third sector organisations, academic institutions, and individuals that routinely work at community level. The next steps will have to ensure that this expertise is brought into the design and delivery of public services in a meaningful and sustainable way.

6. Resources

- National Advisory Council for Women And Girls (NACWG) Report 2019
 - https://onescotland.org/wp-content/uploads/2020/01/NACWG-2019-Report-and-Recommendations.pdf"
- Invisible Women: Exposing Data Bias in a World Designed for Men
 - https://books.google.co.uk/books?hl=en&lr=&id=MKZYDwA AQBAJ&oi=fnd&pg=PT9&dq=invisible+women+criado+perez &ots=PpZH--Y-Qj&sig=h1CSCI9zpWmUEjYd9eperK0kSK0&re dir_esc=y#v=onepage&q=invisible%20women%20criado%20 perez&f=false
- Period poverty: Scotland poll shows women go to desperate lengths https://www.theguardian.com/society/2018/feb/05/periodpoverty-scotland-poll-shows-women-go-to-desperate-lengths
- Lets call periods, periods https://borgenproject.org/free-period-scotland/
- Sex and Power in 2020 https://www.engender.org.uk/content/publications/Engenders-Sex-and-Power-2020.pdf
- Our Bodies, Our Rights Engender https://www.engender.org.uk/content/publications/Our-bodiesour-rights---Identifying-and-removing-barriers-to-disabledwomens-reproductive-rights-in-Scoltand.pdf

- Making agriculture training more accessible and inclusive: a checklist for trainers and training organisers https://www.ruralpayments.org/media/resources/Agriculturaltraining.pdf
- Gender Based Analysis Plus Canadian Government https://cfc-swc.gc.ca/gba-acs/index-en.html
- Imperatives for research designs with Muslim women (Boulanouar et al. 2016) https://www.emerald.com/insight/content/doi/10.1108/MIP-01-2016-0019/full/html
- Moving beyond the 'language problem': developing an understanding of the intersections of health, language and immigration status in interpreter-mediated health encounters https://nca.tandfonline.com/doi/full/10.1080/14708477.2018.1 486409
- Digital Transformations?: Gendering the End User in Digital Government Policy https://www.jstor.org/stable/10.5325/jinfopoli.6.2016.0436
- Integrating the gender dimension in teaching, research content & knowledge and technology transfer: Validating the EFFORTI evaluation framework through three case studies in Europe https://www.sciencedirect.com/science/article/pii/ S0149718919302393

- Discriminating Systems Gender, Race, and Power in Al' research https://ainowinstitute.org/discriminatingsystems.pdf
- How to do better with Gender on Surveys: A Guide for HCI Researchers https://dl.acm.org/doi/abs/10.1145/3338283
- Negotiating Gender and Disability Identities in Participatory Design https://dl.acm.org/doi/abs/10.1145/3328320.3328369
- Better Meetings Workshop https://zoom.us/rec/play/65J8c7itq2g3H4XAsASDAaJ6W42_J_ is23MXrKYPzxmxV3YFY1KiYbEXM-Xsxku9fNzt8ilul1upw8Ql?startTime=1581435688000
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