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Chapter XX: Inclusive digital focus groups – lessons from working with citizens with limited digital literacies

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Abstract. While most research using online (video conferencing) focus groups take for granted people’s digital access and skills, in this chapter we consider work we undertook with people who have low digital literacy levels. We conducted the work during the COVID-19 pandemic and under social distancing regulations, shifting from a face-to-face workshop design to online focus groups. Our findings highlight the ways online focus groups can be successfully delivered when considering those with low digital literacy. Factors including smaller group sizes, joining remote sessions using individual devices, considering and categorising user types, pursuing follow-up questions, and providing contextual examples. These insights are useful for designing, developing, and conducting both ethical and considerate remote focus groups. We found that the literacy levels of your participants shape the way the session will run and that moving online adds another layer of complexity requiring constant adjustments and reflections. This work was part of our Nuffield Foundation funded project “Me and My Big Data: Developing Citizens Data Literacies” that was conducted between 2018-2021.

Keywords: Remote focus groups; digital literacies; Covid-19; methodology; ethics; wellbeing.

1 Introduction

As we adapt to remote ways of working, we need to consider how qualitative research approaches, especially with vulnerable communities, need to shift. We need to reassess how we, as researchers, reach out to and work with participants, especially those with more limited digital skills, access, confidence, or broader digital literacy. This reassessment needs to consider practical issues but also needs to address concerns about individual wellbeing, the associated ethical processes, and the extent to which a shift to digital methods may further marginalise the voices of specific communities. During the global COVID-19 pandemic many citizens shifted lives ‘online’ and digital media have become central to social interaction. Researchers had to reactively change their methods and accommodate ever changing impositions on their field work (Williams et al., 2021; Dodds and Hess, 2020; Woods et al., 2020). However, not all communities are equally ‘online’, nor do they all share the same levels of digital literacy (Yates et al., 2015; 2020; Yates and Lockley, 2018, 2020). An overly simplistic shift to online methods for such things as focus group work could therefore significantly marginalise key communities.

In this chapter we reflect on our methodological experience of conducting online focus groups with UK citizens. This work focused on their digital literacies, mainly recruited participants with low/lower digital skills and took place during the first 12 months of the COVID-19 pandemic. Previous work discussing the challenges of online focus groups (Brüggen and Willems, 2009; Abrams et al., 2015; Moore et al., 2015; Cyr, 2016) assumes that participants are proficient in digital systems and devices. In contrast we illustrate the additional challenges of conducting focus groups where participants have low digital skills. The pandemic also highlighted the much lower levels of digital access and skills that many citizens and households have compared to public perceptions or expectations. Even if this had been well documented in academic research (Hargittai, 2002; Van Dijk and Hacker, 2003, Yates et al, 2015; 2020; Yates and Lockley, 2018, 2020) this sets up a complex challenge for those researchers working with citizens or communities where levels of digital skills and access may be low. Adopting digitally mediated video conferencing tools to undertake remote interview or focus groups work is not a simple option in this case. In the remainder of the chapter we use the terms ‘remote’ or ‘online’ focus groups to refer to a focus groups undertaken using an appropriate video conferencing or group interaction platform such as, but not exclusively, *Zoom* or *Microsoft Teams*.

Understanding how to adapt research to remote digital formats is important for sociology and media scholars, particularly when conducting research on digital literacies, but also for all work with socially, economically, or culturally marginalised groups. Low digital access, skills and capabilities closely correspond with other key demographics in complex and intersectional ways, such as age, income, poverty, being in social housing, low educational attainment, long term ill-health and ethnicity (Dimaggio et al., 2004; Robinson, 2009; Yates et al, 2015; Van Deursen et al., 2017; Yates and Lockley, 2018, 2020; Yates et al., 2020). In our own work we have identified groups of younger people who have low digital skills, predominantly only using social media and entertainment media. Far from being “digital natives” with deep skills, this group has low educational attainment and low income alongside low access levels (smart phone only) and low skills (Yates et al., 2020). There is, therefore, both a challenge in using digital tools with these groups and a danger that methodological shifts which foreground digital tools may limit access to or marginalise the contributions of such groups.

We explore here our experience of addressing this challenge in the context of a study of citizens data literacy (“Me and My Big Data”).¹ As we prepared to move to the fieldwork stage of the project the global pandemic arrived limiting or preventing face-to-face interaction. We therefore worked with project partners to plan a shift to a ‘digital’ or ‘mixed’ format for our focus groups. This included a literature review of recent work on using digital tools to run remote focus groups and close working with our stakeholder partners and their network of local community centres. The chapter reports on this literature review,

planning process, the implementation of the focus groups in a variety of formats, and our reflections on the benefits, limitations and potential best practice stemming from this experience.

2 Literature review

Focus groups are “group discussions exploring a set of specific issues that are focused because the process involves some collective activity” (Kitzinger, 1994, p. 104). They have a long history stretching back to Merton and Lazarsfeld’s use of “focused interviews” in the 1940’s (Merton, 1987; Merton and Kendall, 1946). Focus groups have been used to examine diverse topics using various types of groups and are intended to develop rich discussions. Given their birth in the work of Merton and Lazarsfeld they have a long history in communications, media and audience research, moving into marketing, PR and further out into most branches of social and political research (Lunt and Livingstone, 1996). They have been modified and have brought in new activities and techniques over this long history. Developments have often been tied to technological developments. For example, new recording methods (e.g., video recording), bespoke facilities with recording and observation systems, or the use of technologies to provide the object or activity ‘focused’ on (e.g., video editing method of MacGregor and Morrison, 1995). Over the past two decades digital technology developments have increasingly enabled qualitative data collection to be conducted through online contexts (Tuttas, 2015, Woodyatt et al., 2016) with a greater opportunity to create social presence compared to older digital environments (Stewart and Shamdasani, 2016). Remote digital mediation also supports greater integration between groups who are geographically dispersed (Tuttas, 2015). These technologies therefore provide one of a set of options available to researchers.

The COVID-19 pandemic removed or constrained a significant proportion of the options researchers had for running focus groups. The regulations in many countries concerning social distancing, constraints on movement, safety of the attendees and the ethical questions of putting participants at risk made full face-to-face sessions impossible. Regulation in the UK dictated that the public should stay at home carried full legal force. These regulations changed over time therefore researchers had to work according to government guidance that was constantly evolving. This all said, our reflections and findings here are not solely relevant to working under a pandemic. We would note that there are many circumstances in which physical access to participants is challenging. Travel to field sites may be physically, ethically, or environmentally challenging or participants may be limited in their ability to attend a physical meeting. Digital methods provide a potential solution to these issues and may also open up new opportunities that are not possible face-to-face. To this we are adding the further challenge of working with groups with low digital access and/or skills. We next examine the existing general benefits and limitations of conducting online focus groups including recruitment, size, consent, platform, moderation, and group dynamics.

2.1 Recruitment

A key advantage of remote focus groups is that they can bring together participants who are otherwise geographically dispersed. This enables the inclusion of participants who would otherwise have to travel far or cannot travel at all. Additionally, it allows for the recruitment of those who may not be willing or able to attend in person due to such challenges as disabilities or caring responsibilities. As both participants and researchers do not have to travel this potentially limits the costs, environmental impact, of and time needed for running and attending the event (Ruppert et al., 2017). It also provides greater flexibility in terms of scheduling.

2.2 Size and facilitation

Most of the literature (Murray, 1997; Toner, 2009) highlights the importance of group sizes when considering group facilitation. Smaller groups are recommended as they are easier to facilitate under time pressures. Smaller groups allow more opportunities for a facilitator to actively encourage participants to express themselves equally and this helps to reduce the dominance of individual voices. Whilst face-to-face focus groups offer a relatively controlled shared physical environment, remote groups allow people to remain in their own space. Both options provide opportunities and hazards. Physical locations such as schools, universities, community centres all carry different connotations and expectations for attendees. Being in their own home may be more comfortable and allow participants to present not only themselves but also their remote physical environment. This may also provide extra context for the research and the analysis. However, there is a loss of control and a greater chance for disturbances which can impact upon facilitation. For instance, pets making noises, doorbells ringing, builders drilling - managing these adds to the facilitators list of things to consider - including time frames.

2.3 Facilitation and moderation

Facilitators of focus groups make sure the research questions of the project are covered while having to facilitate between different participants in the group. The sensitivity of topics can affect how much people share and this also changes between in-person and online focus groups. For example, Woodyatt et al. (2016) used focus groups to speak with queer men in Georgia about interpersonal violence which includes various types of violent behaviour including sexual, psychological, and financial. They conducted two in-person focus groups and one online and discovered that the 'anonymity' of participants in the online focus groups made the discussion on sensitive topics feel safer for them and more they were felt able to express disagreements (Woodyatt, 2016). Moderation is especially important, facilitators need to identify dominant voices in the group and know how to enable all the people in the group to voice their opinions in an equal way. Importantly, facilitators need to judge when to intervene to keep track and make sure that the topics

which were planned for the session are covered. For example, Kite and Phongsavan (2017) mention that the communication between online participants was slower and that they spent more time discussing issues that were not relevant to the research. Therefore, they argue that they managed to cover less topics than face-to-face workshops.

2.4 Platform

Moving to online tools requires new confidentiality considerations, particularly the use of systems with good data and cyber security. Both researchers and participants should have appropriate access to the right technology in terms of device, broadband and updated software. According to Kite and Phongsavan (2017), sound quality and the ability of the participants to hear each other is very important and can be a major problem if poor. Facilitators must know the software to operate it smoothly and provide troubleshooting while the workshop is being conducted. The ability to record sessions can help ameliorate some of these issues at transcription or analysis through repeated playback. Lack of experience or practical issues with the technology are noted problems. Archibald et al. (2019) noted that connection issues and problems using software formed the main frustration and barrier for online participants.

2.5 Group dynamics

Archibald et al. (2019) compared Zoom to in-person and audio-only remote groups. Both the researchers and the participants found Zoom far better for developing rapport than audio only. That said, in comparison to in-person interaction one of the key drawbacks of conducting online focus groups is that visual and audio cues are not as easily detected and may be lost in audio recordings. Forrestal et al (2015) suggest using a “round robin” format - inviting participants to contribute responses to questions by name - as this overcomes limitations in terms of cues online. They also suggest this format keeps participants attentive and not “multitasking” whilst online. As Cyr (2016) argues, group dynamics mean that participants’ contributions:

“may not accurately reflect every participant’s individual opinion perfectly. But pressures to conform permeate our social interactions constantly. Personal opinions are a product of the environment and are influenced by the individuals with whom we interact” (Cyr, 2016: 243).

That is why researchers need to consider which people to recruit to each group, how many people are ideal for the discussion and how the group dynamics might affect individuals’ opinions. Confidence with the technology and online interaction as well as experience of video conferencing and online media are additional factors to consider. Groups of mixed ability may lead to those with higher digital literacy dominating the interaction. These factors may cut across, or in our case reinforce, how to select participants to fit the needs of the research or the questions to be explored.

2.6 Best practice

Forrestal et al. (2015) provide a best practice guide for preparing the online workshop, dividing it into three main components: *preparation* (before), *administration* (during), and *follow up* (after). When it comes to preparation, they recommend keeping the groups small. Though some over-recruiting can assist in helping when people drop-out, especially as people tend to cancel at the last minute. They recommend testing the equipment and software beforehand and having the participants log-on before the workshop starts to make sure everything is working. Furthermore, it is important to communicate the details and instructions on logging into the session, including reminders to everyone involved, in a clear and simple manner. As Daniels et al. (2019) argue that the:

“use of tools such as ground rules, pre-focus group information, and informed consent documents can help to mitigate against potential issues that may arise by ensuring participants are well apprised of the process, expectations, and any action that could be taken in the event of situations arising” (Daniels et al., 2019: 10).

In terms of administration, during the session Forrestal et al. (2015) recommend using slides to display key questions, to display the consent text, and highlight examples. They also recommended using participant list and chat functions to monitor participants in terms of who is participating and who might experience issues, and importantly - to manage discussion. Furthermore, Daniels et al. (2019) recommend having a journal that documents the reflection process of the focus groups including: recommendations learned from the workshop; reflexive evaluation of what worked and what did not; and improvements for future workshops. In terms of follow-up, Forrestal et al. (2015) recommend that incentives are sent immediately following the discussion and downloads of the recording are prioritized to avoid losing data.

2.7 Technical benefits

There are many technical benefits to using digital tools to run remote focus groups. Recordings of the sessions are relatively straightforward, and most systems can capture audio, video, and text chat. Some systems, for example the version of Zoom used in our sessions, can capture separate recordings for each user. Systems also provide good metadata on recordings including usernames, dates, and times. Systems such as *Zoom* and *Microsoft Teams* can also provide transcripts of interactions - though they need detailed review for accuracy. This all makes processes of transcription and upload to analytic systems much simpler.

3 Case study: data literacy research

We move on now to share our insights from our “Me and My Big Data” project in the light of this existing literature. Following an analysis of the results of a nationally representative in-home and face-to-face CAPI survey with 1,542 interviews, we identified six user type groups:

1. Extensive political users – likely to undertake most activities measured.
2. Extensive users – likely to undertake most activities measured but not political action.
3. General users – some use across most activities.
4. Social and entertainment media users – low use apart from SNS and entertainment media.
5. Limited users – low to very low use across all measures.
6. Non-users – not online.

For the qualitative data collection, we decided to focus on social media users (group 4), and limited users (group 5) to help unpack some of the key themes that emerged in our national survey. These related mainly to our concept of ‘data thinking’ which includes citizen’s critical thinking and understanding of their data, organisations they share their data with, their practices with data and how they verify information (Yates et al., 2021). To access citizens with low or limited digital skills we worked in partnership with the Good Things Foundation an international digital inclusion charity. Through Good Things we were able to access digital skills centres across the UK.

Initially the research design planned for 20 face-to-face focus group workshops with up to 12 people per group. However, after the first wave of Covid-19 (March 2020), the new regulations placed across the UK rendered in-person focus groups infeasible. The work was put on hold until it became clear that as a society, the use of digital tools would be the ‘new normal’ in the medium to long term. Following a further wave of regulation we opted to set up remote focus groups. We planned for these to be smaller (as per Forrestal et al., 2015) consisting of between 3 - 8 people, to be held on the Zoom platform. We found that remote groups are also best conducted under reduced time frames. In our case what had been intended as an afternoon workshop - with breaks and time to socialise was reduced to a 60-to-90-minute Zoom call.

This approach immediately had obvious limitations, in particular recruiting potentially more vulnerable people who lack digital skills. An information document was designed for dissemination by the digital skills centres that could be both printed and sent electronically. The information sheet provided an overview of the project including weblinks and the emails of the research team and outlined how participants' data would be used as well as the financial incentives. Working with the digital skills centres, based in a variety of community education settings, allowed us to access those currently engaged with the centres. Though they may all have had low digital skills or had just completed basic digital skills training they were, by definition, different from others as they had engaged with the support offered by the centres.

Others with low digital skills and complete non-users not linked to such centres would not be reachable through this approach.

Working with the centres ensured that participants had access to appropriate technology and technical support from the centre. Most participants connected to the focus groups individually from their homes and so demonstrated a level of digital ability through making use of Zoom. A small number of people engaged through attending the digital skills centres' directly at a time when social distancing regulation allowed. Where needed the centres set up the platform and computers and access participants behalf.

There needed to be a joined-up approach to the focus group design to ensure none of the key topics were lost, and to provide consistency throughout the data collection, therefore three different facilitators lead the groups. One of the facilitators was a note taker present at each group who could also address technical issues. The notetaker worked with their camera turned off - although they were always introduced to the group at the start of a session to ensure full disclosure. This ensured sharing of notes and a detailed reflection on each session.

4 Findings

4.1 Facilitators

The team has long term experience of running focus groups or citizen facing workshops. Reflecting on the experience as facilitators, we noted the loss of the initial 'convening' time of face-to-face focus groups before a session starts. Though this might reflect our practice and contexts of research, this is the time when the group is waiting to start, getting a drink, making small talk and where informal introductions can occur beforehand. This provides an opportunity for the participants to observe each other and the facilitators. It can help build some basic familiarity and rapport. Whilst online focus groups can allow the group to convene before the session starts, often the emphasis is on technical aspects of set up rather than casual informal conversation that could set the participants at ease. It is therefore more difficult to build rapport with an online group and especially so when time is limited.

It is well established that the language and topics of focus groups need to be attuned to the social and cultural context of participants. Academic 'jargon' is rarely appropriate. This was especially important given the research topic - digital and data literacy - and the fact the majority of participants had low digital literacy. For example, one of the key findings from the focus groups was the very limited understanding of the idea of 'data'. In the context of academic research and much policy debate the idea of 'data' and the use of 'data' by major platforms is well understood. Not so with our participants. The planned face-to-face design of the workshops included a more extended engagement with this topic as a starting point. As a

result, we quickly had to develop approaches to address this efficiently as it formed a key starting point of the focus group discussion.

These issues of developing ‘common ground’ (Albrecht et al., 1993) were compounded by the lack of immediate non-verbal communication normally present in face-to-face interactions. As a result, it was difficult for us as facilitators to gauge and feel confident about each group's level of understanding. Taking a consistent approach to explaining the research project was therefore essential and ensuring that we did not slip into complex terminology. We were also more overt in seeking evidence of individual and collective understanding, often through direct verbal interaction. Using simple plain English therefore ensured that participants felt comfortable immediately and this in turn built rapport and established common ground. We also had a number of participants for whom English was a second language and therefore this establishment of clear terms helped with their inclusion in the discussion.

As suggested by Forrestal et al. (2015) having a “back channel” communications route was very helpful. It supported a line of communication between the facilitators that would not normally be present in a basic face-to-face focus group. Though some research practice has included equipping facilitators with earpieces for external researchers to pass on messages, queries and suggestions. In our case, during the focus groups the note-taker who had their video and microphone turned off, wrote and communicated to the main facilitator privately through Zoom’s direct messages on the Chat option. This allowed the note taker to prompt the facilitator if they got caught up in the conversation and needed to raise a topic or issue, ask something specific or needed to ask follow-up questions.

A key tool to support the research team was the post-session reflections document dedicated to each focus group. Having a discussion of the notes and a 30-minute verbal review of each group and their responses helped to shape future sessions but at the same time allowed for consistency. Once again these were held online. This was especially useful given the novelty of the online format allowing the facilitators to discuss content, technical and group dynamics issues. For example, the challenge of defining ‘data’ or the problems of bringing in quieter participants to the discussion. In addition, project meetings were scheduled in between the focus groups which allowed for the ironing out of issues and shape the future sessions. Such a method is not novel in and of itself. However, as the team were also geographically distributed and under COVID-19 restrictions having these as shared documents on an appropriate remote platform (e.g. *Basecamp*) significantly helped the team.

4.2 Group dynamics

As we noted above, interpersonal interaction and group dynamics are key to all focus group work. As facilitators it became very clear that the task of managing an online group required careful and considered work to ensure that the discussion remained focused, and that participants had an equal

opportunity to speak. This obviously builds on the issues of rapport development noted above. Table 1 provides an overview to the focus group setup.

The various aspects of group dynamics are very contextual. Two key factors being if the group already knows each other and the routes by which they were recruited. These can often be interlinked. Recruitment is often through stakeholders or gatekeepers, and this can create its own set of complex dynamics that we do not have space to explore here (MacDougall & Fudge, 2001). This is especially important for more marginalised groups (for example, see Wilson, 2020). In our case, contact with participants was organised through a third party, Good Things Foundation, who then recruited partners from their extensive network of community based digital inclusion centres. The team built strong links and very good rapport with the community centre contact points (“gatekeepers”). In depth discussion with gatekeepers provided a good understanding of the local context and routes the participants would have taken to interact with the centre.

Table 1. Overview to focus groups design and participants

Target group	Focus group	Participants (N)	Likely user types	Format
Younger people (<30 - preferably under 25) who may have some digital skills and/or are social media focused	A	9	Social and entertainment media users, or extensive users	Zoom only
	B	5	Social and entertainment media users	
	C	4	Social and entertainment media users	
Older adults (55+) who are offline or with limited digital skills	D	7	General or limited users	Zoom only
	E	6	General or limited users	Participants socially distanced in centre – researchers on Zoom via data projector.
	F	4	General or limited users	
Older adults with digital skills	G	7	General users	Zoom only
	H	5	General or extensive users	
Older adults (55+) who are offline or with limited digital skills	I	3	General or limited users	Zoom only
	J	4	General or limited users	
Adults with limited digital skills	K	2	Limited users	Zoom only
	L	4	General or limited users	
Post-18 education students with higher digital skills	M	5	Extensive or extensive political users	Zoom only
	N	5	Extensive or extensive political users	

None of this is particularly different to face-to-face sessions, but we were particularly dependent upon these gatekeepers for such contextual information. A physical visit to the centre and interactions with other local contacts would have provided further context and appreciation of the participants' situations.

This also limited our prior knowledge of the potential relationships between participants attending the groups, again being dependent on information from gatekeepers. In future work we would recommend developing a structured set of contextual questions to ask or identifying key data sets to collect from gatekeepers prior to the session - especially if the interaction with the gatekeepers is limited.

In our work some of these gatekeeping centre representatives joined the focus groups to support a range of issues and help with the development of rapport. In particular they were there to help make sure everyone overcame their technical issues and felt comfortable in the session. If these were face-to-face interactions we might not have included the centre representatives as this work could have been done in the ‘convening’ time before the session. As they were present, this influenced the dynamic as the participants seemed to feel obliged to credit the centre for their skills. In several situations when asked about digital literacies the participants said such things as “it’s only thanks to John that we are online”.

4.3 Common ground and rapport

At the same time, on several occasions the presence of the centre's representatives in the focus groups helped to better explain some of our questions and develop common ground. The centre representatives could ‘translate’ questions or examples into the language and ideas from the digital training participants had engaged with. The representatives' close familiarity with the everyday lives of the participants meant that they were able to sometimes ask follow-up questions and unpick descriptions of activities based on prior knowledge. When we asked participants about their ‘data day’ the centre's representatives might remind the participants that they also do online shopping and online banking to help them illustrate how they use their data every day.

Developing rapport with some of our groups therefore appeared to take longer than it had in our prior experience of face-to-face sessions. As ever with such work, sometimes only after we stopped the recording and talked after the ‘formalities’ were over, did some participants reveal things that were very useful for the research. This can be because participants have had time to think or because greater rapport and common ground was built by that point. This is pertinent to online sessions as we argue for keeping these sessions shorter to support participant wellbeing. As a result, limiting the time for the session limits the likelihood of these contributions coming forward. Exploring the development of an appropriate initial rapport development session could therefore be a key take home for future work. This needs to be balanced with time constraints and not wanting to exhaust participants with long online sessions.

4.4 Participant contexts

In moving to online focus groups we lose control of the environment in which participants are placed. They may be in their homes, places of work or other social contexts. Many low-level digital users lack the

equipment and facilities (laptop, Wi-Fi) to effectively take part online groups. Digital inequalities are not just about access and skills, very often those who are digitally excluded lack a “space and/or place” to “be digital” - such as a private room or a quiet space. The physical context from which participants join the online interaction can have important implications for their contributions and group dynamics. Some of our participants joined Zoom as individuals from locations other than their homes including public locations. For example, a participant in our “extensive users” group joined from a university library. This clearly impacted on their level and form of contribution. Similarly, two of our groups were set up “in person” with participants on separate machines in the same room with the facilitators on a large screen. This set up proved quite poor in terms of group management, group dynamics and levels of contribution and suffered technical issues as described below. As a result, we would not recommend such setups. We would emphasise the importance of ensuring all participants are in a physical and social context that will facilitate full interaction.

4.5 Size of group

When it comes to the size of the group it is difficult to establish how many participants is an ‘ideal number’. Forrestal et al. (2015) argue for smaller groups (3 to 8 participants). Our groups (see Table 1) stayed within this range. We found some of our larger groups were more interactive, but it is challenging getting through everyone’s perspective on each topic within a limited time. In larger groups, facilitators need to be mindful of the extent to which some individuals follow and agree with what others have said within the discussions. This is an issue in face-to-face groups, but facilitators should be mindful about whether this is amplified in online discussions. The need to “un-mute” or the slight rigidity of a ‘round robin’ approach can set up a pattern of group dynamics that reinforces short confirmatory answers. Ensuring facilitators encourage a rich and equal discussion from a distance without the traditional use of non-verbal cues is challenging and should be considered when designing online focus group themes and topics. Technology can support this. For example, if all participants are clearly identifiable on screen with names visible, then keeping track of contributions is much easier. This also facilitates bringing in participants by name. Reducing the size of groups where possible ensures that interactions are manageable, and discussions fit within the time frames. Groups of more than eight people in an online interaction could be less fruitful for gathering both rich and equal contributions.

There were also some noticeable gender differences in terms of participation. Generally, older men tended to speak more frequently and more confidently whether or not they actually had digital literacy skills. Women tended to answer more concisely, and occasionally if men took over the session, they tended to be quieter. Thinking about the gender dynamics is important and worth considering when facilitating to ensure balanced participation, and also potentially missing out on gender specific experiences.

4.6 Nonverbal cues

In the remote environment (and because of it) special attention was given to non-verbal cues that would not necessarily be picked up in transcriptions. For example, nodding of heads or thumbs up in acknowledgement of what others were saying. Often head nods replaced verbal cues because people did not want to interrupt or unmute to simply say yes or no. This was a key reason for insisting, as far as reasonable, that participants had their camera on. Having cameras switched on increased their engagement or at least it seemed that they were more engaged, but also meant that their facial expressions and body language could be read by not only the facilitators but also others in the group. Often, as facilitators, we would acknowledge such things to ensure they were captured in the transcript: “I see you are nodding there Jane”; “Thanks for the thumbs up Paula”.

As far as possible participants were directly addressed using their name to encourage responses. Though this may be done face-to-face, it “felt” more directive online and was perhaps performed to compensate for the lack of co-local non-verbal communication to help manage turn taking and establish rapport and familiarity. Unintentionally, facilitators found they were working in the broadly “round robin” approach advocated by Forrestal et al (2015). This advice appeared too restrictive prior to conducting the groups but the behaviour possibly falls out of the nature of online group dynamics.

4.7 Levels of digital literacy

Of particular importance to our study, but a clearly important feature in general, are the differences in digital literacy levels within a group. The intention was to have groups consisting of participants with similar digital literacy levels (see Table 1). However, there were instances where levels varied, and this created an imbalance in the discussion. The more literate participants elaborated upon their answers, taking up more time which correspondingly shortened the answers of the participants who had lower levels of literacy. Experience with technologies such as Zoom or MS Teams could also create an imbalance. Outside of our study other research may recruit participants with much higher digital literacy. For example, a focus group with University staff or IT workers could likely rely on participants using key tool features such as raising electronic hands, using “thumbs up” or other emojis or sharing files or screens. For many participants such skills cannot be assumed.

We would suggest setting ground rules about which features of the technology platform can should or should not be used. Using such features may also have bearing on how the data are collected and how such activities are recorded. In the context of discussing digital media, those with lower levels of digital literacy could also feel overwhelmed by the comprehensive responses given by other participants. They may also feel less confident about the responses they were providing. As a result, we would not recommend mixed groups with notably different digital literacy levels for most studies.

4.8 Ethics

As with all human participant research, priority was given to ensuring ethical conduct throughout the research and ensuring the wellbeing of participants. The online context set up a number of challenges in gaining ethical clearance for the team. At ethics review it became clear that many assumptions about gaining consent depended on physical presence - such as paper-based consent forms that could be signed. Participant consent needed to ensure that each participant had information about the research project, as well as their role and rights within the research context - including rights to their data and data storage information and anonymity. Something that can often be done in the initial 'convening time' before the start of a focus group.

To resolve this, we sent out the participant information sheets and consent forms to the participating centres to be shared with participants. We also went through these via an agreed script at the start of the focus group - recording both this description and the verbal consent provided by participants. Where participants have higher levels of digital skills this could all be done via email or other digital media and documents that can be signed digitally. However, in our case, due to the third-party access to participants and the fact that for some individuals creating a digital signature was outside of their experience, the decision was taken to do this verbally at the start of each session. Upon reflection a more proactive approach could have been taken for ensuring that individuals who were less literate could still access information about the project and ethical related content. For example, providing a short video outlining the information from the written consent. Our focus groups themselves highlighted "YouTube" and other short video formats are a preferred route that participants use to access information (Yates et al., 2021).

Another ethical consideration was around the participants' well-being and ability to participate. Ideally participants should be logged-in on separate devices and located in safe comfortable private locations. This also helps to reduce technical issues relating to audio. However, as noted above many people do not have a good quality location to "be digital". To address these challenges one centre located in a deprived area of a city in the Northwest of the UK set up an 'in centre' based approach (social distancing rules had relaxed at that point). Most participants recruited at this centre did not own their own laptops. In addition, this particular group had very limited literacy levels. The centre workers had to help to set up the session and were also online and assisting the participants both before, during and after the session to reduce technical interruptions and try to help the flow of the session. This meant that most of the time was spent on making sure the communication channel was working and hindered the rapport and ability to develop the conversation. Finally, long online meetings can be tiring and lead to participants and facilitators being tied to a location and screen for a sustained period of time. We therefore decided to hold the sessions for no longer than one hour, ensuring that the session wasn't onerous, and that participants were comfortable.

4.9 Technical issues

There were several technical difficulties experienced during the sessions, and these were magnified at times when working in conjunction with participants with lower digital literacy levels. A prevalent issue throughout related to sound and the delays that can occur when participants broadband slows or pauses. This issue can directly impact upon how fruitful and interactive the discussions are. Managing the interruptions that occurred through the audio channels involved the facilitators directly addressing the sound problems by acknowledging them verbally. Additionally, several participants could not operate the sound properly, or were sitting too far away from their devices to hear them properly. Therefore, it was important to ensure that participants could hear the session before starting any of the discussions. We would argue for factoring in a short period (e.g. five minutes) at the start of the session to address technical errors - which is unfortunate when time is limited.

Broadband connections also impacted on certain individuals' ability to stay throughout the entirety of a session. For a small number their connection allowed them only to be present via audio channels. When this occurred, the live nature of the session meant that we had to carry on regardless to avoid running out of time. Another issue was that several participants were not familiar with Zoom and how to adjust the sound so when they talked the microphone was muted. One incident to note relates to a group who were all co-located at the same centre and this caused an echo and feedback which was very challenging and resulted in the participants having to mute themselves until they wanted to talk. This in turn had an impact upon how smoothly the discussion happened, the extent to which participants felt confident in contributing, and the general dynamic of the group. Furthermore, it was difficult to later transcribe and to allocate each voice to a specific person. On this occasion not all the participants were as engaged because the camera and laptop were not directly in front of them. Overall, we would not recommend running online groups where participants are collectively together in one space due to the technical issues (sound) and the complexity of managing group dynamics.

4.10 Other issues

Whilst these insights are based on a small number of focus groups, they are useful for understanding the complexities of conducting online interactions with people who are digitally excluded. Access was granted through third parties which was an advantage to us, but this also places limitations on our ability to gain larger numbers of participants. Digital methods for promoting research participation (for instance through forums / social media and email exchange) have also become a common approach. Such methods would not, of course, easily reach the digitally excluded groups we were engaged with, but we would caution against this approach (Boydell, 2014), especially for marginalised groups (Russomanno, et al., 2019). The 'hard to reach' are called that for a reason, but in our digital society these issues can be

compounded by a lack of digital connection. In addition, people considered to be connected (through having access to the internet) are also at risk of becoming excluded through limited use or limited skills - for example predominantly only using social media on their smartphones (Yates et al., 2020).

We also acknowledge that there are many other platforms than Zoom or Microsoft Teams for conducting interactive remote collaborative work (e.g. GoToWebinar, WebEx, Miro, Lucidsprak, etc.) but we purposefully chose not to use these given our target demographic's access and skill set. The current global context has paved the way for using remote methods of data collection and there is a wealth of research making use of interactive sessions (Newman et al., 2021). We therefore recognise that there is an increasing number of shared resources to conduct these kinds of sessions. We have noted the challenges of using basic systems with participants with low levels of digital literacy. However, we would also caution against their broader use without detailed exploration of two things: first, the digital skills and competencies of participants; and second of the set of platform tools and features 'allowed to be used' in the season.

5 Conclusion

In this chapter we have outlined the methodological challenges our project experienced during a very niche point in time, the Covid-19 pandemic, and how we responded to them. A time when using face-to-face methods for qualitative data collection became impossible due to social distancing restrictions in the UK. The physical circumstances and subsequent regulation forced us to consider remote approaches we would not have otherwise taken. However, in doing so, our experience highlighted the need to reflectively adapt and change to meet the challenges that already exist in conducting focus groups online.

Over the course of the pandemic, citizens have adapted to using video conferencing; potentially through their work roles and/or connecting socially to family and friends. However, it is important to emphasise that for some of our focus group participants it was their first-time using video conferencing - as well as attending a focus group session. The entire experience was new to them. This form of communication represents another aspect of the digital divide and we need to be very mindful that connectivity cannot be taken-for-granted for everyone.

Our research focuses on data literacies and to ensure the relevant demographics were targeted there were additional difficulties in moving the previously designed workshops to Zoom based focus groups. The previous design for a face-to-face workshop consisting of interactive tasks and activities was redesigned. In doing so it became more simplistic to fit some of the participants' needs. The amount of time for each group was also shortened from two hours to one hour. This time restriction was possibly more pertinent as participants likely had other stresses and concerns due to the COVID-19 pandemic and restrictions (Ntinyari and Iyer, 2020). Conducting this work, has revealed how there is a need to take a flexible approach not only to the research design but also to working with participants skills, competencies and needs.

The specific challenges of conducting focus groups with digitally limited users have been considered in this chapter and whilst these insights were specific to our fieldwork, the findings can be applied more generally to help others in their research design when working with people who have lower digital literacy levels. Taking up Forrester et al.'s (2020) comments about the design of focus groups we summarize our recommendations in Table 2.

Table 2. Recommendations for the design of focus groups

Preparation ("before")	<ul style="list-style-type: none"> • Consider timing within the overall focus group design for technical issues and problems. • Ensure the language you use is jargon free (beware of acronyms!) and use plain and simple language for a broad audience at all times. • Ensure each participant has access to project and consent information in an appropriate format. We suggest simple documents (sent before the session) to read at leisure or short videos that can be shared. • The method of recording consent may vary depending on the digital tools being used and the digital skills of the participants. We suggest a verbal review and verbal consent as part of the online session. • Plan well in advance - potentially with partners, stakeholder or gatekeepers - to ensure that each participant has their own device and access to an appropriate device and internet access (WI-FI/broadband) as well as being in an appropriate location. • Ensure the digital literacy levels of the group are similar - this may require data on participants backgrounds or information from gatekeepers to appropriately form the groups. Particularly when focusing on research related to digital literacy, or inclusion. • Make clear which features of the platform can, should or should not be used during the session. Don't allow the use of features likely to be outside some participants' experience. • Work with gatekeepers to develop a strong understanding of the context of participants - especially if you have not had a chance to meet participants or gatekeepers in person. • Where possible, develop interactions with participants before the session to help build rapport.
Administration ("during")	<ul style="list-style-type: none"> • Make use of platforms private chat as a useful back-channel to communicate within the team without disturbing the interaction with participants. • Ensure you properly explain and contextualise the terms and ideas you are communicating. • Don't assume understanding of key terms - especially in relation to digital systems - ensure that you establish common ground. • Try to make sure everyone gets an equal voice, so that dominant participants do not take over the discussion. Participants can be encouraged to talk by directly inviting their viewpoint. Though slightly formal, a "round robin" approach works well in online platforms. Use platform tools and features (participant lists) to monitor the interaction and ensure contributions are invited. • Ahead of time, plan methods for developing rapport within the session timetable.
Follow up ("after")	<ul style="list-style-type: none"> • Prepare a post-focus group report after each session and use that to reflect upon your approaches and where necessary to adjust your next session. • Allow time for the team to informally review the session directly after it has finished. • Modify plans considering experience.

Beyond these insights, the pandemic has revealed how important it is to be adaptable during fieldwork. The events of 2020 and 2021, propelled the digital landscape into the forefront - highlighting how wide the digital divide is. Whilst those who have digital access, skills and capabilities can easily adapt using their existing knowledge and experience, not everyone is so fortunate. We need to continue finding

ways to engage with people who may be low-level digital users. Whilst the focus remains on access and skills there will always be people excluded from the digital domain. Accessing ‘hard to reach’ people will continue to be a challenge but one that researchers should continue to press. The sudden shift in the landscape impacted our approach to our research but did not change the topics we covered - just how we could address them and interact with participants. This chapter showcases one example of how unexpected circumstances can change how we work, but more research is needed to examine how we continue to develop and deploy digital methods for qualitative fieldwork.

NOTES

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