METHOD ARTICLE

Going virtual: adapting in-person interactive focus groups to the online environment [version 1; peer review: 2 approved]

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Abstract

Restrictions on social interaction and travel due to the COVID-19 pandemic have affected how researchers approach fieldwork and data collection. Whilst online focus groups have received attention since the 2000s as a method for qualitative data collection, relatively little of the relevant literature appears to have made use of now ubiquitous video calling software and synchronous, interactive discussion tools. Our own experiences in organising fieldwork aimed at understanding the impact of different 'future-proofing' strategies for the European agri-food system during this period resulted in several methodological changes being made at short notice. We present an approach to converting in-person focus group to a virtual methodology and provide a checklist for researchers planning their own online focus groups. Our findings suggest data are comparable to in-person focus groups and factors influencing data quality during online focus groups can be safeguarded. There are several key steps, both before and during the focus groups, which can be taken to ensure the smooth running of such events. We share our reflections on this approach and provide a resource for other researchers moving to online-only data collection.

Keywords

Online focus groups, virtual focus groups, stakeholder engagement, qualitative research, sustainable food systems, responsible research and innovation

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Introduction

The ongoing COVID-19 pandemic and attendant "lockdowns" in Europe and many other parts of the world have presented numerous practical methodological challenges for researchers (Marhefka *et al.*, 2020). For some, it has disrupted non-COVID-related clinical trials (Upadhaya *et al.*, 2020). For others, it has meant a fundamental shift in fieldwork strategies for research. For CropBooster-P – a Horizon 2020 project exploring options for future-proofing European crops considering climate change and other sustainability challenges – it meant adjusting a series of planned in-person workshop focus groups designed to understand stakeholder attitudes towards crop improvement options. The postponement of these in-person workshops led to the development of a novel approach to stakeholder engagement involving online focus groups that brought together different groups from across the agri-food system – farmer representatives, non-governmental organisations, food policy and regulation experts, plant breeders, agri-food consortium representatives and consumer experts – to gather data during the first COVID-19 lockdown. This approach also led to several methodological challenges, such as shifting to an online video conferencing platform and identifying tools that could preserve the more interactive components of the focus groups.

Here, we present our approach to those challenges and the practical steps we took to convert in-person focus groups to online, video-based focus groups in light of social distancing restrictions. We believe there is great scope for virtual focus groups to be used in the future, particularly in order to increase engagement from hard-to-reach stakeholders, such as those living in rural areas and different countries. Although asynchronous (Gordon *et al.*, 2021) and text-based (Fox, 2017) focus groups remain common, there are only a handful of studies that deal explicitly with video-based, synchronous, interactive focus groups – and these are often specific to health research (Gill & Baillie, 2018).

In the first section, we outline our initial methodological approach before describing the changes that were made to adapt our focus groups to an online environment in the second. In the final section we discuss our findings with reference to existing literature and provide a checklist for running similar events as *Underlying data.*

Original study methodology

We planned to use a mixed-methods approach to this study, combining quantitative data – in the form of an online survey – with qualitative data derived from both the survey and virtual focus groups. The protocol for both studies was developed and piloted in early 2020. The survey was not, from a methodological standpoint, affected by the COVID-19 pandemic as this was planned as an online survey from its inception, so is not described in further detail. The evolution of the focus groups, however, is described below.

Focus group background and aims

In order to understand the potential impacts of different future-proofing strategies for European crops, a series of focus groups were planned with relevant agri-food stakeholders from across Europe. Focus groups provide a mechanism for both the generation of new ideas and the assessment of potential ideas; they offer insights into the differences of opinion that exist among selected groups of people and can generate a large amount of data in a relatively short period of time (Breen, 2006; Rabiee, 2004). Focus groups were considered an appropriate tool to investigate a broad range of opinions on the various crop improvement strategies relevant to the project.

Ethical approval by Lancaster University Faculty of Science and Technology Research Ethics Committee was granted (reference: FST19070), which outlined the overall protocols of the study, what types of data would be collected and how it would be managed – with an amendment filed and approved when the work was moved online. Three moderators (JM, SS and AN) were assigned different stakeholder groups and were tasked with developing and testing the focus group method.

A semi-structured, in-person focus group protocol was created to guide researchers through the focus group meetings and ensure consistency and comparability between the data from each stakeholder group. The primary questions were:

- What are the biggest challenges for the European agri-food sector over the next 30 years?
- Which CropBooster option is most important?
- Which CropBooster option is least important?
- What might the social, environmental or economic impacts of a particular option be?
- How do these options meet the challenges facing the European agri-food sector?
- What other things should be included in the CropBooster options?

This protocol was piloted by each of the three moderators and by the work package lead; 16 people took part in the in-person pilots at Lancaster Environment Centre and five at Wageningen University.

CropBooster-P: goals and options

The focus groups were designed as "world café style" focus groups (MacFarlane *et al.*, 2017) in which participants would move with their moderator between three "stations" that corresponded to one of the three overarching goals of the CropBooster-P project: sustainability, nutrition and yield (see Figure 1). Twenty minutes of discussion at each station would allow participants to engage with the five crop improvements presented at each station. Participants would begin with introductions to the group and an icebreaker: "what do you think the one main challenge for European food and agriculture will be over the next 30 years?". To facilitate discussion and to present each of the options to participants, 15 double-sided "option cards" were developed, which featured an indication of the goal, an explanation of the option itself and a science-based example of this option applied to a real-world crop. These were printed on card and were designed to be passed around between

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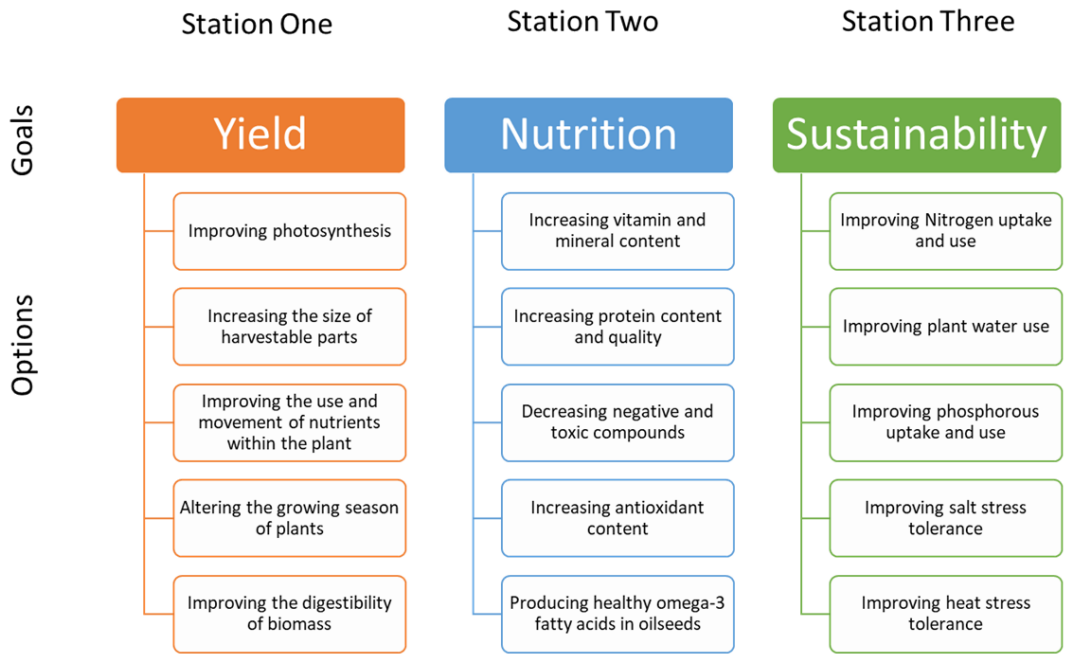

Figure 1. The three CropBooster goals and 15 options for improving crops.

participants. An example of an option card can be seen in Figure 2. Participants would be asked to read each of the five cards at the station and given time to decide which option they thought was most important and which option they thought was least important. A participant would then be selected at random by the moderator and the following questions worked through:

1. Which option do you think is most important for future-proofing the European food system?
2. What would the impact of that option be?
   a. Probing questions: environmental, social, and economic impacts
   b. What else would have to happen for [this option] to have an impact?
3. Did anyone else in the group have that option as most important?
   a. If so, why?
   b. If not, why not?

These questions would be continued until all participants had contributed their choice for the most important option. The same questions and process would follow for gathering opinions about the least important option. An insurance question ("how do these options meet the challenges for the future of the European food system you outlined earlier?") provided moderators with additional discussion topics in case of unanimity.

Once all groups had visited all three stations, and discussed all 15 options, they would join into one large group for the final activity. Participants were to be asked what they felt was missing from the options which had been presented during the focus group. In addition to the 15 option cards, a blank card – "Option Card #16" – was created which participants could add their own suggestions to for additional crop improvement options (see Figure 3). This activity was designed to foster discussion about what potential crop improvement strategies could be added to the list and to offer participants an opportunity to engage with those from other focus groups.

Moving the focus groups online

The in-person focus groups were planned for March 2020 and were interrupted by the first lockdowns in Europe – this necessitated an investigation into the feasibility of online focus groups and the development of a protocol to preserve the more interactive, visual elements of the study, such as the "option card" activities, as pilot participants had found these to be an interesting stimulus for discussion.

Despite some variation in the data collected, previous literature suggest that online focus groups produce similar amounts of information of similar quality to that of face-to face focus groups (Brüggen & Willems, 2009; Kite & Phongsavan, 2017; Underhill & Olmsted, 2003; Woodyatt *et al.*, 2016). There are also several other key issues to address when considering the needs of the virtual environment:

1. Identifying a suitable hosting platform and means of recording the focus groups
2. Determining the best way to adjust the protocol and present discussion materials in an online environment

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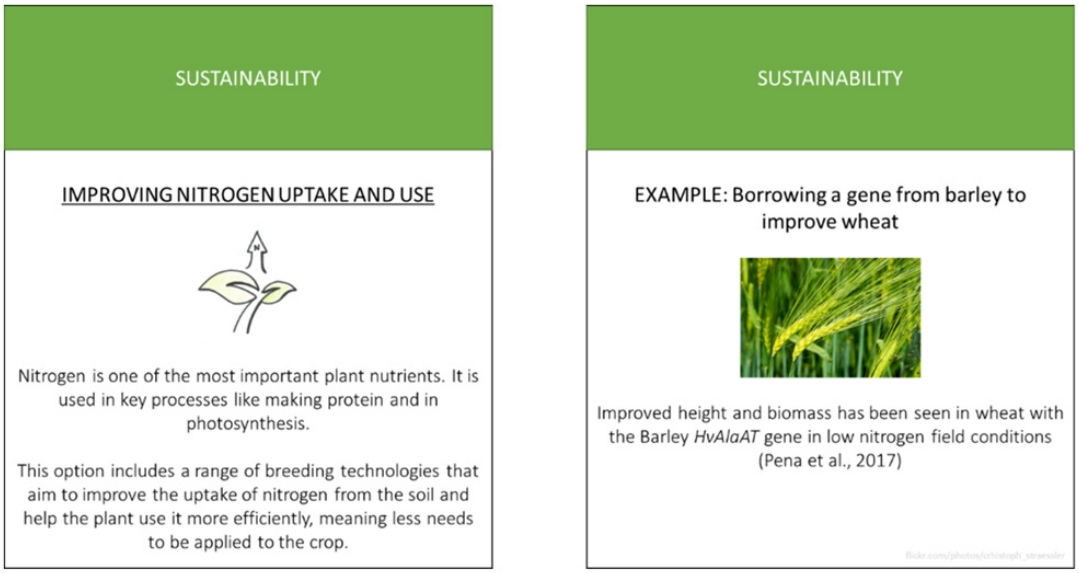

Figure 2. Example option card. Front (left) and back (right).

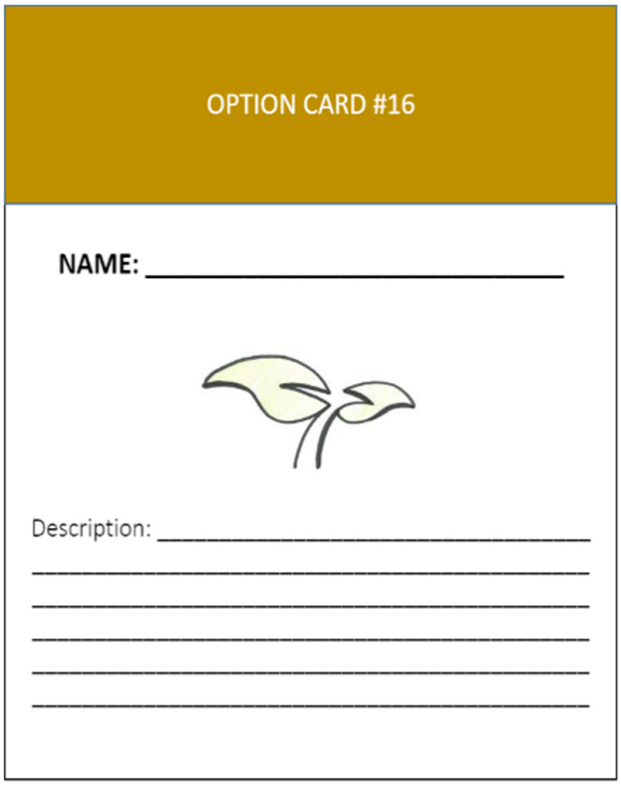

Figure 3. The Option Card #16 activity card.

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3. Scrutinising to what extent the adjustments in materials and platform changed our ability to address the main research questions

Our approach to each of these issues is described below.

Identifying a suitable hosting platform

The choice of platform to host focus groups is important and there are an increasing number of options, including social media platforms (Medley-Rath, 2019). In our case, we needed to ensure that the host platform met certain criteria:

- Meetings can be audio and video recorded
- The research team had some experience with the software
- It was deemed intuitive to use
- Screensharing can be used to guide participants through the options cards easily
- Participants can join meetings from an internet browser and are not required to create an account or download software in order to attend a meeting
- It is a widely available platform with good stability and security standards
- A chat function that allows links and messages to be shared without breaking the flow of the conversation

Given these requirements, we chose *Microsoft Teams* as our hosting platform. Additional functionality has been added to *Teams* since we held our focus groups, including break out rooms and a 'raising hand' feature, both of which could prove useful in a focus group setting.

Adjusting the protocol and materials

In addition to using *Teams*, we also needed a tool to manage the interactive component of the focus groups. This tool had to combine the functionality of a whiteboard with the ability to incorporate static images (the "option cards") that could also be locked in place to avoid unwanted re-positioning by participants. As with the hosting platform, we also felt that extra steps – such as creating accounts – should be avoided if possible.

There are a number of options when it comes to interactive whiteboarding (and it should be noted that platforms like *Teams* have since incorporated whiteboard functionality), but for the reasons highlighted above we chose the website *MURAL* (MURAL, 2020). This method allowed us to transfer the existing design to an online version with relatively few changes (see Figure 4). Multiple versions were created with different goal and option card orders to avoid ordering bias.

We offered participants the choice of navigating the *MURAL* whiteboard independently or following along via screensharing (similar to handling physical option cards). The moderator then allowed the participants to read through the options cards, goal by goal. Where necessary, option card text was read aloud. Participants were also able to ask clarifying questions during this stage. *MURAL's* "summon" feature was useful here; it permits the moderator to bring the participants to whatever section of the whiteboard they have in view. A final summary box was shown at the end of each goal – this listed the five options just presented, allowing participants to remind themselves of the options they had just read about.

It also became necessary to video record this process to capture the visual elements of the discussion when *MURAL* was in use. An amendment was granted to the existing ethical approval for this process. In addition, and specific to the online environment, the safe collection and storage of video images (which contain personal data in terms of recognisable faces) became a key requirement for the platform. *Microsoft Teams* met this requirement as it saves recorded meetings to a secure, encrypted platform called *Stream*. (*Stream* also provides automatic transcription of video files, which may be useful and save money on professional transcription in certain circumstances; however, we did not find the quality to be sufficient for our needs and did use a professional service for transcription.)

Focus group logistics

As the target focus group size was between three and six participants, focus groups were organised to include a minimum of four confirmed participants in order to account for potential cancellations/no shows. Several sign up options were trialled; a short survey using the *Qualtrics* (paid-for service) survey platform was chosen, as this allowed multiple options for dates to be provided, collection of email addresses (particularly useful when contacting an organisation rather than an individual) and gathering basic information about participant backgrounds, etc. Links to access the focus group meetings in *Teams* were circulated to participants prior to the focus groups, as well as provided via calendar invitations, along with instructions for joining.

Back-up video call links were prepared in advance for each focus group using a separate service (*WebEx*), in case of technical issues with the *Teams* platform on the day of the focus group. *MURAL* presentations were also downloaded as PDFs in case of any issues with the *MURAL* website during the focus groups. Encrypted audio recorders were used to capture computer audio in addition to the built-in *Teams* recording service, in case of any technical issues with the latter.

Back-up moderators were available to join the call at any time via *Teams* – to facilitate this transition, a document shared between the facilitators contained links to the video call, back-up video call, consent form link, and *MURAL* for the focus group. Participants were told there was a back-up moderator who could be contacted if they had technical problems on the day, and who would fill in for the moderator if the moderator had technical problems that forced them to leave the call. Participants were also given the back-up moderator's email address in case they needed to contact them directly for any reason.

Consent forms were provided as a survey link, which allowed moderators to check who had completed the consent form prior to starting formal data collection. Microphone and video connections for each individual participant were checked

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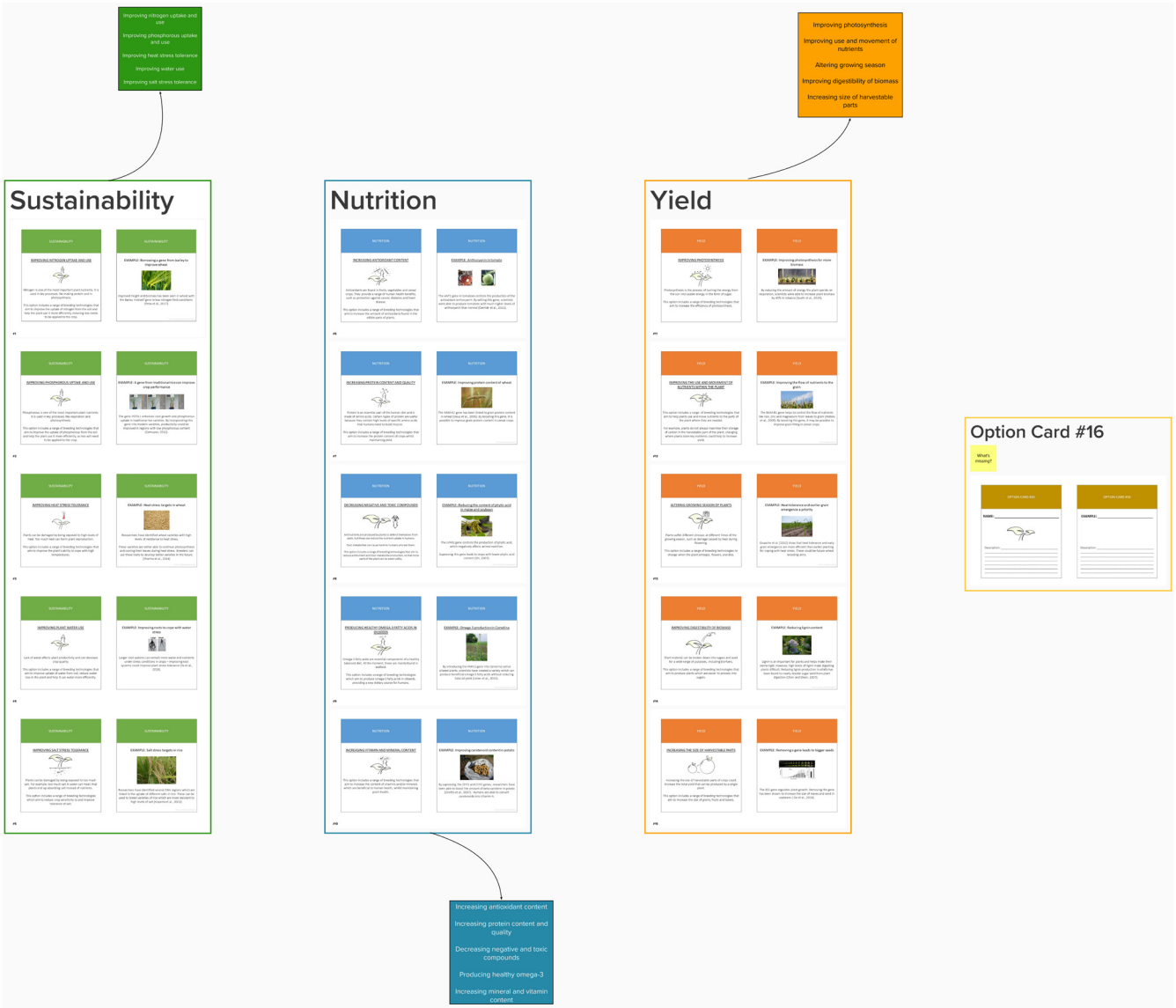

Figure 4. One of the MURAL whiteboards used in the focus groups. The order of goals and options was rearranged for each group to avoid ordering bias.

before starting data collection. Moderators learned how to fix minor technological issues prior to the focus groups by frequent use of the *Teams* platform in the months leading up to the focus groups and through testing various scenarios in advance (e.g. using *Teams* in a web browser, via the application on a computer, connecting through a mobile phone, etc.).

Time at the start of the call was set aside for checking microphones, videos, consent forms, etc. allowing the meeting to keep to schedule. This time was also useful for building rapport with and between participants, which, as Gill & Baillie (2018) note, is particularly important in online settings.

A number of important logistical issues for planning online focus groups have been raised by Tuttas (2015), many of which were crucial to the development of the CropBooster-P online focus group method – several items of particular note are detailed along with the action taken in Table 1. In order to facilitate future research, an Online Focus Group Checklist brings together the issues taken into consideration by the research team both from the literature reviewed prior to conducting the focus groups, and by the research team's experience running these virtual focus groups (see *Underlying data*).

The online focus group protocol

The online focus group protocol remained as close to the original focus group protocol as was practical under the circumstances. Group introductions and the icebreaker question remained unchanged. Instead of three focus groups running simultaneously (one starting at each of the different world café stations), each

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Table 1. Considerations for hosting online focus groups.

Consideration (Tuttas, 2015)	CropBooster-P action
Estimating the digital proficiency of your participant population and adjusting accordingly	The technological proficiency of each stakeholder group was estimated with the input of key stakeholder liaisons within the research team, and the protocol was adapted to provide alternatives suitable to differing levels of proficiency/technology availability
Establishing rapport with participants in advance through emails	The moderators contacted their participants directly via email multiple times, allowing for queries and initial conversations to begin prior to the virtual focus groups
Asking participants to mute their microphone when not speaking	The facilitators' experience with online calls prior to the focus groups led to our decision to encourage participants to keep their microphones **on** when not speaking (unless in a particularly noisy situation), as it was felt to encourage a more natural conversation flow
Recruitment and adjusting the protocol to cope with low numbers	A back-up protocol was put in place in the event that only one participant joined the virtual focus group – the protocol was easily adapted by the facilitators to suit groups of various sizes ranging from two to six.

focus group was conducted separately, to allow at least one back-up moderator to be available at all times. As Ritchie notes (2014), managing the start of a focus group is important as problems can be pre-empted early on. A number of ground rules were established to ensure the smooth-flowing of the focus groups, such as promoting patience with one another (given that online meetings are different to in-person meetings), that there are no right or wrong answers in focus groups, that the session was being recorded and what to do in case of technical problems.

Rather than physically moving between stations and reading physical option cards at each one, moderators presented the option cards via *MURAL* to the participants. One set of five option cards, relating to a single goal, was presented at a time, and participants were given time to read each of these, and note down their selection for most/least important options while viewing a summary card, reminding them of the five options they had just viewed. The option card discussion points remained unchanged from the original protocol, with only minor changes due to additional piloting experience, rather than the switch to the virtual environment *per se* (e.g. the addition of the question: "no one has mentioned [option] yet – why?" in order to elicit information about every option, not only those which were classed as best/worst). The final activity, Option Card #16, which had originally been intended to allow interaction amongst all participants was restructured. A blank option card image was provided in the *MURAL* and participants were encouraged to brainstorm ideas for additional crop improvement options. The moderator shared their screen during this activity and noted down the participants' suggestions as virtual post-it notes inside the blank option card. This allowed participants to keep track of the discussion, ensured ideas were being properly captured, and gave the research team an opportunity to compare these ideas across different focus groups.

Scrutinising the impact of these changes on our ability to address the main research questions

After re-designing the protocol and materials, the focus group was re-piloted online by the three moderators. The data produced during these pilots were discussed by the research team and compared with the data produced during the in-person pilots – and found to be broadly similar. Some minor technical and procedural issues were raised and adjusted in the final online protocol. Given the similarities in themes raised and depth of discussions during the in-person and online pilots, it was determined that the online focus groups provided a suitable route to addressing the research questions.

Discussion

This paper presents the steps taken to convert a synchronous, in-person focus group into a series of video-based online focus groups in light of COVID-19 restrictions. While some changes to the protocol could not be avoided (e.g. the final Option Card #16 activity, intended to bring participants together from different focus groups, had to be significantly altered in order to ensure back-up moderators were available), the core research questions and methodology were able to be adapted to run online. Based on a comparison of in-person vs online piloting of the protocols, these two methods were found to deliver similar results in terms of themes raised by participants and depth of discussion.

Unlike Rupert *et al.* (2017), our focus groups cost much less than the planned expenditure for the in-person events (though costs were incurred due to the late cancellation of the in-person focus groups due to COVID-19). This is likely due to the fact that we offered no inducements for attendance – a key cost in some health research – and we organised the meetings "in-house". Kite & Phongsavan (2017) found audio quality to be an issue when it came to transcription. We did not, however, find this to be a problem.

It had previously been necessary for us to coincide our focus groups with larger events in Brussels, where the workshops had been due to take place, so that we could speak with farmers from across Europe. In this way, online focus groups offer researchers more freedom and increase the range of potential participants. However, although online methodologies of this kind can improve access to hard-to-reach populations, there remain key inequities

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to be addressed more generally; Tates *et al.* (2009) note that the digital divide may restrict participation in online studies by certain people and, if wider generalisability is a concern, may also introduce sampling bias in favour of more technologically-literate participants.

A number of issues relating to the virtual environment were considered in the planning and preparation of these focus groups – these are summarised in the Online Focus Group Checklist (see *Underlying data*), which provides a useful tool for those engaging in similar exercises. Broadly speaking, there are two key areas to consider.

Before the focus group

The primary concern for researchers before the focus group begins is mitigating the possibility that technology will be a barrier to participation; be careful not to assume that all participants will be equally IT proficient or that the smooth running of chosen software is guaranteed. Potential problems can be mitigated by providing clear joining instructions and having contingency plans in place, including: ensuring that moderators practice using the software in question through piloting, pre-organised back-up meetings and alternative moderators, and sharing information on what to do in case there are technical difficulties.

Last minute cancellations and/or registered participants not joining the call was an issue in several of the focus groups. This had been anticipated in advance as being potentially more likely in an online meeting and had been mitigated against by signing-up at least of four people where a minimum of three was required; Liamputtong (2015) suggests over-recruiting is sensible and this remains the case for online focus groups. However, uptake was very variable between the different stakeholder groups (for example, all registered farmer representatives attended, while two participants did not join a single NGO/policy representative call). Maintaining a flexible methodology, wherever possible, and being prepared for a variable number of attendees helped to minimise the impact of this issue, but planning to recruit more than the required number of participants is also essential.

During the focus group

During the focus group itself, there are a number of factors to bear in mind. Several participants had problems joining the *Teams* calls due to this program being blocked by firewalls on their institutional IT rules – researching this in advance for the programs being used, and ensuring participants are aware that they need to join on a personal computer, would reduce this issue going forward. Moderators also offered a time for participants to check that they could access the programs and do a test call, if this was felt to be necessary, which allowed both an additional opportunity for rapport building and to ensure those with less technological confidence or equipment were not left out.

Although moderators are required to encourage interaction amongst focus group participants in any setting (Kitzinger, 1994; Puchta & Potter, 2004), this was doubly true for online focus groups in which certain normal interaction cues, such as body language and natural pauses in speech, are lacking or altered. It is important that moderators provide these cues, such as by bringing in different participants at different times and ensuring everyone has a chance to comment on a given issue. The use of silence, in order to account for any lag between question and response, is also important. Given these factors, Fox's (2017) suggestion that synchronous online focus groups work best with smaller numbers of people than in-person focus groups is supported.

In addition, encouraging participants to remain unmuted when not speaking allowed them to react naturally and quickly to conversational stimuli. In our case, some small issues around sound quality arose when there was background noise, but these were minor and led to rapport-building jokes and camaraderie, rather than disrupting data collection. Participants self-muted when they felt the background noise where they were was irritatingly loud, though platforms such as *Teams* also allow the moderator to mute others should this become an issue.

Conclusion

In summary, while the move from in-person to online data collection raises logistical and methodological issues to be addressed, these are not insurmountable – and online focus groups can additionally reduce costs in terms of time and money, expand the pool of potential participants in a research project through access to more remote areas and lessen the environmental impact of would-be travel. Adapting to run focus groups online can be done without compromising on research output quality and may provide a valuable alternative to in-person data collection, both in crisis situations such as COVID-19, and in specific research scenarios, such as targeting rural populations, which can be particularly relevant to agri-food-focussed research. The development of the Online Focus Group Checklist can provide a useful starting point in the preparation for a move to online data collection.

Data availability

Underlying data

Lancaster University Research Directory: CropBooster-P Online Focus Group Checklist: https://doi.org/10.17635/lancaster/researchdata/462 (Menary *et al.*, 2021).

Data are available under the terms of the Creative Commons Zero "No rights reserved" data waiver (CC0 1.0 Public domain dedication).

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✔ **Matthew Reed**
Countryside and Community Research Institute, University of Gloucestershire, Cheltenham, United Kingdom

This paper is a well constructed and timely account of preparing and managing online focus groups. It details the processes, pitfalls and practicalities of synchronous video calls as a modality of focus groups. Although the subject matter concerns food security, the reflections are relevant for a much wider audience.

The focus on ethics, the importance of preparation and consideration of participants is evident in the step by step account of the groups. The checklist is a resource I can imagine many others using. All of the references are pertinent and locate the discussion within the literature. It is essential that the experience of online focus groups during the pandemic is captured in the literature and is used to inform the development of the method. To those ends, this is an important paper and certainly at an appropriate level of development for publication.

My questions would focus on the definition of focus groups, which covers a wide range of practices. For some, the focus group is between 6 - 12 individuals who do not know one another and may have no expertise on the topic to be discussed, a staple of much opinion polling and market research. The groups outlined in this paper are quite different. A reflection on the diversity within the methodology of focus groups would be helpful.

A fuller discussion of the benefits of 'online' would be welcome, possibly as lines of future research. Whilst the methods have advantages such as being cheaper, and the downsides of digital exclusion are well-established. Less reflected on maybe the benefits of online approaches, such as participants perhaps being more candid when in their own space or the socially anxious being more willing to participate or greater inclusion of those with mobility issues.

A final reflection might be about how these technologies segue with others to start to change the processes around data creation and the volume of qualitative data that might be collected. Automated transcription and qualitative analytic software may yet be transformative of such

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research methods, and I would invite the authors to reflect on those topics.

Is the rationale for developing the new method (or application) clearly explained?
Yes

Is the description of the method technically sound?
Yes

Are sufficient details provided to allow replication of the method development and its use by others?
Yes

If any results are presented, are all the source data underlying the results available to ensure full reproducibility?
Yes

Are the conclusions about the method and its performance adequately supported by the findings presented in the article?
Yes

Is the argument information presented in such a way that it can be understood by a non-academic audience?
Yes

Does the piece present solutions to actual real world challenges?
Yes

Is real-world evidence provided to support any conclusions made?
Yes

Could any solutions being offered be effectively implemented in practice?
Yes

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: sustainable food systems, farmers, food, qualitative research, digital media.

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard.

Reviewer Report 10 May 2021

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Fiona Fox
National Institute for Health Research Collaboration for Leadership in Applied Health Research and Care West (NIHR CLAHRC West), Bristol, Ukraine

This manuscript describes the process of adapting synchronous, in-person focus group into a series of video-based online focus groups. It is based on fieldwork that was designed to understand the impact of different 'future-proofing' strategies for the European agri-food system. The authors had to rapidly adapt their planned methodological approach in light of COVID-19 restrictions.

The authors present a clear sequence of steps that can be replicated by other research teams and which will be relevant to researchers from multiple academic backgrounds. The rigorous planning and testing of platforms and supporting technology is a strength of this manuscript and suggests attention to detail.

It may be useful for the authors to report the demographics of their online focus group sample. This could add some understanding about potential barriers to participation, which may have been affected by factors such as age, gender, or ethnicity.

The Online Focus Group Checklist is very useful and the link to this resource could be more clearly signposted within the manuscript.

In my opinion this is an important and useful manuscript. Given the rapid development and use of online video-based platforms, this paper will add to existing literature regarding online focus groups. It may also provide a blue print for other researchers who are adapting research methodologies and considering the use of interactive tools. It is pertinent in light of the challenges facing researchers during the COVID-19 pandemic but also demonstrates the methodological validity of online, versus face to face focus groups.

Is the rationale for developing the new method (or application) clearly explained?
Yes

Is the description of the method technically sound?
Yes

Are sufficient details provided to allow replication of the method development and its use by others?
Yes

If any results are presented, are all the source data underlying the results available to ensure full reproducibility?
No source data required

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Are the conclusions about the method and its performance adequately supported by the findings presented in the article?
Yes

Is the argument information presented in such a way that it can be understood by a non-academic audience?
Yes

Does the piece present solutions to actual real world challenges?
Yes

Is real-world evidence provided to support any conclusions made?
Yes

Could any solutions being offered be effectively implemented in practice?
Yes

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: qualitative research

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard.

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