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Assessing the effectiveness of video-based interviewing: a systematic comparison of video-conferencing based dyadic interviews and focus groups

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ABSTRACT


The article introduces a systematic comparison of video-based dyadic interviews and focus groups using newly developed tools for evaluating the success of one way of doing focus groups over another. We conducted a series of online discussions using a video conferencing tool, half of which consisted of four-person focus groups and the other half were two-person dyadic interviews. Moderators, who were well-trained master students of a course on digital technologies and data collection, answered systematic questions that compared their experiences with each type of group. All participants were contacted after their interviews to complete an online survey rating their experience. Analyses of logistics, moderating, and interaction issues investigated the various advantages of one or the other form of data collection, while also illustrating the value of online focus groups. Most of the advantages that we located favoured two-person over four-person groups, with the notable exception of the larger groups producing more ideas that moderators rated as unique and relevant.

KEYWORDS

Online focus groups; video conferencing; dyadic interviewing; systematic comparison; digital technologies

Since their re-emergence in social sciences in the 1980 s, focus groups have become an increasingly popular method for collecting qualitative data. One recent overview of this method estimated that there are nearly 4,000 articles published per year using focus groups (Morgan, 2018). During this period, there have been a number of innovations with regard to how focus groups are conducted (e.g., Abrams et al., 2015; Deakin & Wakefield, 2013; Fox et al., 2007; Jacobson, 1999; Kenny, 2005, Schneider et al., 2002; Tuttas, 2015), and this article examines two of them: the use of online technologies, and the differences between typical focus groups and two-person dyadic interviews.

Online technologies, namely the internet, are increasingly being used for qualitative data collection in general, and focus groups in particular. There are a number of salient features of internet data collection that researchers can benefit from, including lower financial (Cater, 2011; Joinson, 2005) and time investments (Jankowski & van Selm, 2005; O'Conner & Madge, 2003), increased accuracy of data collection (Fricker & Schonlau, 2002; Oringderff, 2004), and easier logistical and organizational procedures (Lobe, 2017). Recently, researchers have emphasized the potential that video-based focus groups have to bring together the best features of online and offline venues when conducting focus groups (Archibald et al., 2019; Tuttas, 2015). According to their supporters, there are specific situations in which online video focus groups provide advantages over traditional face-to-face focus groups, such as when the participants are hard to reach or

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geographically dispersed (Nicholas et al., 2010; Rupert et al., 2017; Wilkerson et al., 2014) and when it is desirable to obtain visual as well as audio data.

Experimentation with different formats for conducting focus groups is another area of innovation. The use of two-person dyadic interviews is an active area in this regard (Morgan, 2015). In contrast to the group discussion in focus groups, dyadic interviews produce a conversation between a pair of participants. According to their supporters, there are specific situations in which dyadic interviews provide advantages over focus groups, such as when it is difficult to recruit a large group or when there is a need for more depth and detail from each of the participants.

Unfortunately, methods for assessing the relative effectiveness of different ways of doing focus group are lacking (an issue that we will return to in our Discussion section). One rare example is Morgan and Hoffman (2018), who presented a system for the detailed analysis of group interaction, which they applied to a comparison of focus groups and dyadic interviews, which emphasized how participants made transitions between their turns at talk. Beyond the relatively narrow goal for of studying turn taking as the form of interaction, a further limitation of that approach is the line-by-line coding in their system, which requires a considerable commitment of time and resources. We thus present a series of newly developed, easy to use tools for evaluating the relative success of one way of doing focus groups over another.

To demonstrate these new tools, we conducted a series of online interviews using a video conferencing tool, eighteen of which consisted of four-person focus groups and eighteen of which were two-person dyadic interviews. We used the same moderators, in total eighteen, for both sets of groups, with each moderator conducting both a focus group and a dyadic interview. We then used a series of systematic questions to compare the moderators' experiences with each type of group. In addition, we contacted all the participants after their interviews and had them complete an online survey rating their experience.

This allowed us to address the following research questions:

1. How do moderators perceive the differences between two-person and four-person video-conference groups?
 - 1a. What do moderators perceive as differences with regard to conducting the groups?
 - 1b. What do moderators perceive as differences with regard to interaction in the groups?
2. How do participants in two-person and four-person videoconference groups perceive the differences in their experiences?
 - 2a. What are the perceived differences in comfort level between participants in two person and four person groups?
 - 2b. What are the perceived differences in the nature of their participation between participants in two person and four person groups?

Background

Online focus groups and videoconferencing

Essentially, online research methods are extensions of traditional methods, using infrastructure provided by the internet (Chen & Hinton, 1999; Jankowski, 1999) and numerous digital technologies. An online focus group is thus a computer-mediated 'communication event' (Albrecht et al., 1993; Terrance et al., 1993) that attempts to mimic the general format in an offline group. One of the main characteristics of an online focus group is that both the researcher and participants are expected to have at least some level of computer literacy (Lobe, 2008).

In general, the key difference between offline and online focus groups is in their temporal structure. Online data collection may be conducted in various settings and can be classified according to the nature of computer-mediated communication (CMC) as synchronous (e.g., instant messaging) (Fox et al., 2007) or asynchronous (e.g., forums, email) (Bampton & Cowton, 2002; Bampton et al., 2013; Jacobson, 1999; Mann & Stewart, 2000; Rezabek, 2000).

Synchronous data collection closely resembles real time data collection (e.g., an offline focus group) as both researcher and participants are online simultaneously. In the early stage of online qualitative data collection (for example, Lobe, 2008; O'Conner & Madge, 2003; Reid & Reid, 2005), synchronous online focus groups were conducted solely via text. This type of online synchronous interaction may pose some issues (e.g., quicker, more superficial answers, and blurred lines between responding to the message and sending the message) (Chen & Hinton, 1999; O'Conner & Madge, 2003). On the contrary, asynchronous data collection includes a time lag between researchers posting the question and the respondent's answer (e.g., via email or posting to a bulletin board). This additional time can result in more exhaustive and reflective answers (Fox et al., 2007; Kivits, 2005; Oringderff, 2004); however, if the researchers fail to establish ground rules about communication at the beginning of the focus group, asynchronous groups can take a considerable amount of time (Markham, 1998).

In response to the limitations of both asynchronous groups and text-based synchronous groups, videoconferencing is starting to be used for online focus groups (e. g. Archibald et al., 2019; Ingram & Steger, 2015; Kite & Phongsavan, 2017; Tuttas, 2015). This is due in part to the availability of newer and faster digital technology. It also reflects the desire for a closer match to the face-to-face interaction in traditional focus groups. Although video focus groups lose some of the advantages of online text-based data collection, such as a lack of automated transcriptions, and costs, they can offer more flexibility in data collection. For example, in comparison to traditional offline groups, all types of online focus groups give the researcher a greater variety of options for recruiting an adequate group, because it is easier to locate specific categories of participants and replace the drop-outs. In addition, videoconferencing enables the moderator to keep a 'tighter' discussion going than in text-based groups, which makes it well-suited to both more and less structured approaches (Lobe, 2017). Further, video focus groups can easily handle up to six participants, while the ideal number of participants in text-based synchronous groups is three (Lobe, 2008). A higher number of participants in text-based synchronous groups contributes to blurred interaction that is increasingly difficult for the participants to follow and for the moderators to conduct. Much like in face-to-face focus groups, video focus groups enable immediate replies to others' comments, whilst the intense typing interaction in text-based groups can make it difficult to distinguish between replying to a previous message and posting a new message (Lobe, 2008).

Most of the literature on videoconferencing to date, however, has been limited to descriptive accounts of the difficulties of conducting focus groups using videoconferencing software. Reports on successful video-based groups are only now appearing (e.g., Matthews et al., 2018).

Dyadic, two-person interviews versus focus groups

The historical size range for in-person focus groups is typically between four and ten participants. More recently, there has been interest in small dyadic interviews, which involve only two participants (Morgan, 2015). Some studies have demonstrated the practical effectiveness of dyadic interviews (Morgan et al., 2013, 2015). Only one study, however, has compared focus groups with dyadic interviews (Morgan & Hoffman, 2018). The goal of that study was to compare the interactions in conversations from dyadic interviews with the group discussions from focus groups, using detailed, line-by-line coding of transcripts from interviews that asked the same questions to matching categories of participants. The authors found small but consistent differences, where the conversations in dyadic interviews were more informal and free-flowing.

At this time, however, we have no data about the moderator's or the participants' points of view about how dyadic interviews compare with focus groups. From the moderator's perspective, we need to investigate whether two-person interviews are easier or more difficult to conduct. In particular, we need to hear about logistical issues such as recruitment and interpersonal issues, such as managing the group. From the participants' perspective, we need to investigate whether things like comfort level and honesty are similar or different in the two types of interviews. In

particular, we need to hear about things like their willingness to share their true feelings and how the group format affected their self-expression.

Combining the issues: videoconferencing with dyadic interviews and focus groups

This research used identical recruitment methods to bring together participants for dyadic interviews and focus groups that were all conducted via videoconference. Each of the participants received the same interview questions after the discussion. This is the first known assessment of dyadic interviews in a videoconference, and one of less than a handful of studies that have examined videoconferencing focus groups from either the moderator's or the participants' points of view (see Archibald et al., 2019; Matthews et al., 2018; K. Stewart & Williams, 2005; D. W. Stewart & Shamdasani, 2017). Further, it is the only study that has systematically compared dyadic interviews with focus groups that were conducted in a videoconferencing environment. Our analysis will address these issues.

Research methods

All focus groups discussed in this article were conducted online as part of a class research project conducted by masters-levels students in the Social Informatics program at the University of Ljubljana, Slovenia. The students held the role of the moderators, and all of them received training lectures on focus groups in general and online focus groups in particular prior to the data collection for the project. Our goal was for the student moderators to compare their experiences with conducting each type of group, so we regarded as important for all of them to have approximately the same level of expertise, rather than for them to be experienced moderators.

Each of the moderators was assigned to conduct and record two group interviews via videoconferencing software, one with two participants and one with four participants. After completing their two groups, the moderators compared their experiences using a systematic set of questions. In addition, a survey link was given to each group participant, to be filled in immediately after the interview. The full set of groups were conducted in various languages because the moderators were international students, and often recruited participants who spoke their own language. Each was conducted in a single language, and, we asked the moderators to write transcriptions in their own languages, whilst all the grids were completed in English.

Research design for online video focus groups and dyadic interviews

All the interviews were conducted in a synchronous format. This format was chosen due to the nature of videoconferencing, which mimics real time, face-to-face interactions where the participants have the ability to hear and see one another. The groups were conducted with either two or four participants. The two-person groups lasted an average of 46 minutes and the four-person groups an average of 55 minutes. All groups were conducted in December 2015 and January 2016.

Sampling

The moderators located participants with convenience and snowball sampling strategies, mainly through social networking sites; the participants were mostly university colleagues. To prevent the same participant from participating in more than one group, the moderators were given strict rules not to recruit the same people. In their screening questions for participants, they included a question about whether the person had already been invited to participate. None of the moderators reported to having such a case. In addition, none of the participants were enrolled in the same class with any of the moderators. Some of the moderators did contact their families and relatives to help them find participants. In total, there were 108 participants in this study.

Data collection

Each research assistant moderated one two- and one four-person online group, and transcribed those groups verbatim. They then completed three grids on the differences between those two- and four-person groups. The content for the three grids was adapted from the literature review in Morgan and Lobe (2011). The first grid provided basic information for each focus group: where the participants were located, how participants were initially contacted, what sampling method was used, any other sampling issues that arose, the number of contacted participants, the number of refusals/dropouts, the date and time of the group, the duration of the group, and basic demographic information on the participants (gender, age, nationality).

The second grid included comparisons of moderating issues for the two groups that each moderators conducted. The categories provided in this grid included moderating issues related to probing responses, non-verbal communication, follow up responses, restoring off-topic interaction, managing overly active exchanges, encouraging non-talkative participants, minimising distractions, avoiding departures from the groups, and the ability to prepare and relax the respondents. To describe each of their experiences as moderators, moderators used a five point scale (1 – none, 2 – basic, 3 – moderate, 4 – great, and 5 – excellent) and wrote a few sentences to justify their choice of score.

In the third grid, each moderator used the transcripts to compare the output from the two groups. This grid covered issues such as number of unique ideas, number of relevant comments, number of off-topic comments, number of short statements of agreement, number of short statements of disagreement, amount of disclosure, and overall quality of group dynamics.

As an additional piece of data, each moderator wrote a one- to two-page summary of comparisons, focusing mainly on the technological aspect of conducting the groups (including the benefits and possible issues they might have). The summaries were carefully read to identify any technological and methodological issues raised by the assistant researchers.

After completing each online video group, the moderators provided participants with a link to a ‘post focus groups’ online survey. If the participants understood English (the class was international), then they filled in the survey directly. Otherwise, the moderators asked them questions and completed the survey. The survey included questions on how comfortable the participants felt during the focus groups, how honest they were in expressing their thoughts and viewpoints, and how they felt about the interaction during the discussions.

The discussion topic

In both types of groups, the topic for discussion was ‘the perception of social networking sites and personal concerns about social networking sites.’ It focused on the participants’ personal experiences using such sites, including their worries, risks, and opportunities. The topic guide was identical for the two-person and four-person groups, and contained one opening question, three introductory questions, three transition questions, seven key questions, and two closing questions. The topic guide was designed to generate a discussion of approximately one hour in length.

Data analysis

The data were analysed qualitatively and quantitatively. We investigated the data from the moderators’ first grid to ensure that the groups conducted by the moderators matched the criteria specified in the research design, and no issues were detected. For the second grid, we examined the one-to-five scores to determine whether the ratings for the two types of group differed by at least two points; if so, the accompanying comments were examined to determine the source of the differences. For the third grid, the numerical judgements on number of unique ideas, etc., allowed for direct comparisons, while we evaluated the moderators’ subjective summaries qualitatively to

determine any perceived differences between the interaction in the groups. Next, we examined the moderators' textual summaries qualitatively to locate any statements indicating the superiority of one type of interview or the other. Finally, we summarized the survey data from the research participants quantitatively. However, due to the verbatim transcriptions being written in various languages, we were limited in pursuing the analysis of the thematic content in the data collected. However, several researchers have done so to compare various modes of focus groups, and found no significant differences in thematic content across the modes (Abrams et al., 2015; Namey et al., 2020; Nicholas et al., 2010; Synnot et al., 2014; Woodyatt et al., 2016).

Results

Moderators' ratings

Comparisons between ratings of issues related to moderating

Table 1 summarizes the moderators' ratings of the two-person and four-person groups from the second of the three grids. The top panel in the table shows that the only issue that did not favor two-person groups over four-person groups was preparing and relaxing the participants for video conferencing. The remainder of the table is organized according to the extent to which the moderators favored two-person groups. Thus, under logistical issues, the numbers in brackets show six more moderators said that it was easier to recruit for two-person groups, three more moderators judged

two-person groups to have fewer problems with departures, and four more said that they had fewer distractions than in larger groups. These differences in logistical issues are likely due to sheer differences in size. The smaller number of people involved in the dyadic interviews made these problems less likely to occur.

In contrast, the bottom portion of the table shows more substantive differences with regard to group size. Overall, the moderators consistently found less need to use their own actions to conduct the two-person groups; instead, they could rely on the participants' own activity. Participants' interaction made moderating easier in the two-person groups than the four-person groups with regard to non-verbal communication, probing by the moderator, restoring off-topic interaction, managing overly active exchanges, and encouraging non-talkative participants. The next section reports on moderators' direct ratings of those interactions.

Table 1. Comparing moderators' ratings on issues in two-person and four-person groups.

Encouraging non-talkative participants	
Preparing and relaxing the participants for video conferencing	The moderators did not report very many issues in this regard in either type of group. In general, the participants were well prepared and relaxed without any need for help from the moderator.
Ratings that Favored Two-Person Groups: Logistical Issues	
Recruitment problems	It took less time and effort to recruit the smaller number of participants in two-person groups. (+6)
Minimizing distractions	Distractions occurred less often in smaller groups simply because there were fewer people, so there was less opportunity for a distraction to occur. (+4)
Avoiding departures	This occurred less often in larger than in small because there were fewer people, so there was less opportunity for a departure to occur. (+3)
Ratings that Favored Two-Person Groups: Moderating Issues	
Nonverbal interaction by moderator	Participants were more ready and able to talk by themselves in two-person groups. (+2)
Probing responses from moderator	Moderators needed to do less to encourage ongoing interaction in two-person groups. (+2)
Restoring off-topic interaction	There were more off-topic conversations introduced in four-person groups. (+2)
Managing overly active exchanges	The two-person groups had fewer problems with either multiple people starting to talk at the same time or with one person talking more than the others. (+3)
Encouraging non-talkative participants	The four-person groups had more cases in which the moderator needed to encourage at least one participant to talk. (+4)

Comparisons of participants' interaction

The third grid from the data collection provided the moderators' judgments about the nature of the participants' interaction in the two types of groups. The questions in this grid began with moderators' numerical estimates of how often various kinds of comments and interactions occurred in the two-person and four-person groups, which showed that nearly all the differences favored the four-person groups, with their larger number of participants and lengthier discussions. In particular, the moderators estimated the number of unique ideas raised in each group as well as the number of relevant comments. In the first case, twelve out of the eighteen moderators felt that their four-person group generated more unique ideas than their two-person group. In the second case, all of the moderators rated the four-person groups as producing more relevant comments. The greater amount of activity generated in the four-person groups was not always favorable, however. In particular, moderators rated the larger groups as producing more off-topic comments in eleven versus seven group pairs, and similarly as more likely to produce short statements of either agreement or disagreement. Thus, the four-person groups were rated as generating more of each of these kinds of interaction.

The moderators also reported summary judgments (as opposed to numerical estimates) about the nature of the interaction in the two types of groups. Interestingly, neither type of group was rated as superior. For example, five moderators felt that there was more self-disclosure in their two-person group than in their four-person group, while six felt there was more disclosure in their four-person group, and one felt that they were about the same. Similar differences of opinion also occurred with regard to the amounts of interaction and non-verbal communication, as well as the quality of the overall interaction. This pattern of one type of group being as likely to be favored as the other suggests that there was considerable variation from group to group within both two-person and four-person groups. Thus, neither type of group could be judged as better than the other with regard to subjective ratings of the nature and quality of the interaction.

Comparisons of moderators' textual summaries

In their textual summaries of their experiences, 11 of the 18 moderators made comparisons between the two-person and four-person groups (the others wrote exclusively about their experience in using the online technology). Among the moderators who provided an opinion, eight favored the two-person interviews and three favored the four-person interviews. An informal content analysis of these opinions substantially agreed with the moderators' earlier ratings. The main differences they reported were judgments that the two-person groups were easier to moderate and that they produced better interaction. In addition, the moderators reported fewer problems with distracted participants in the two-person groups. Finally, as might be expected, technical problems were more likely to occur in the four-person groups, due to the fact that twice as many people needed to be connected successfully.

Participants' survey ratings of the two types of groups

In the online survey that participants completed immediately after the videoconference interviews, the first question asked, 'Did you feel comfortable stating your true thoughts in the group discussion?' Participants in both dyadic interviews and focus groups reported high levels of comfort about sharing their true thoughts. Because this item combined the issues of both self-expression and honesty, the questionnaire included other items that separated the measure of these two topics.

Figure 1 shows the responses to the question, 'How honest were you in expressing your thoughts and viewpoints?' In this case, there is a difference in favor of reporting 'complete honesty' in the dyadic interviews, but it is not large (95 percent versus 76 percent).

With regard to self-expression, there were four yes-no questions. Two of these questions, 'Did you publicly agree with something during the group discussion that you don't really agree with privately?' and 'At any time during the discussion did you worry about expressing your true thoughts?' showed no difference. (Both types of interview received reports of less than 10 percent

How honest were you in expressing your thoughts and viewpoints?

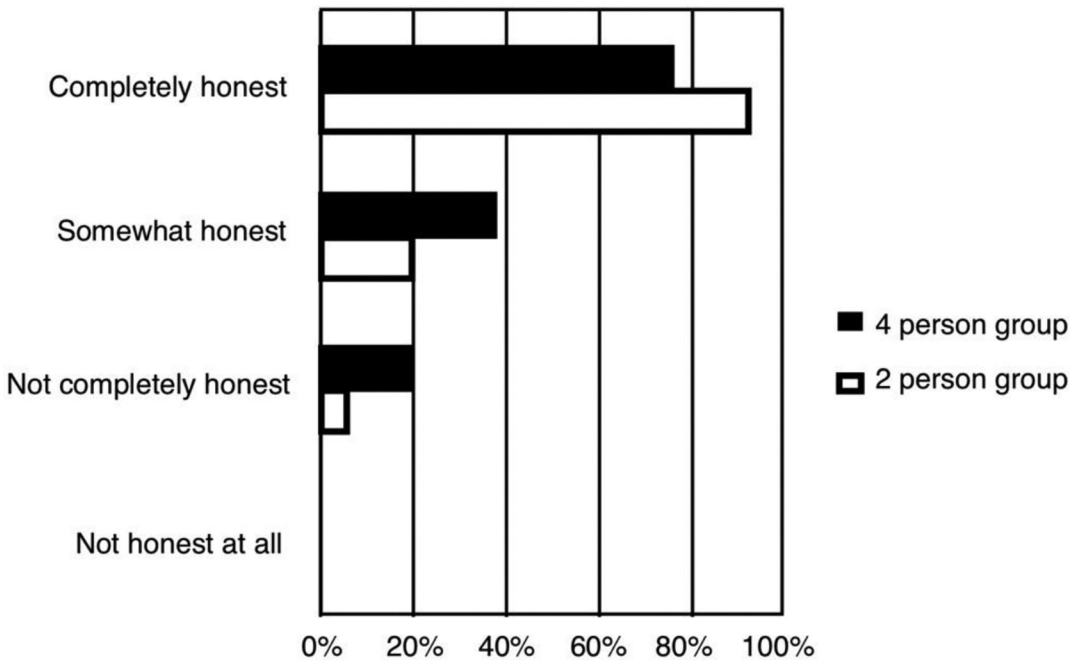


Figure 1. Self-reported honesty in focus groups and dyadic interviews.

on each of these questions.) The other two questions showed more positive results for the dyadic interviews. The first of these – ‘Were there times during the discussion that you **agreed** with something someone said, but did not say anything?’ – showed 35 percent of the focus group participants saying yes, but only 23 percent agreement from the participants in the dyadic interviews. While this might simply represent less opportunity to share one’s opinions in the two-person groups, that was less likely to be the case in the remaining question, ‘Were there times during the discussion that you **disagreed** with something someone said, but did not say anything?’ In that case, only 6 percent of the participants from the dyadic interviews said yes, as opposed to 29 percent of the participants from the focus groups.

Finally, we asked, ‘How comfortable did you feel participating in a discussion online as opposed to having a face-to-face discussion?’ As Figure 2 shows, the results once again favoured the dyadic interviews. This suggests that the two-person format, in which participants shared the video with only one conversation partner, was more like a face-to-face discussion, compared to dealing with a screen that showed three other discussion participants.

Discussion and conclusions

Discussion

In general, the moderators’ opinions favoured the two person, dyadic groups. With respect to logistical (organisational) issues including avoiding departures, minimizing distractions, and recruitment issues, two-person groups were clearly favoured. Further, moderating issues, including nonverbal interaction, probing responses, restoring off topic interaction, managing overly active

How comfortable did you feel participating in a discussion online as opposed to having a face to face discussion?

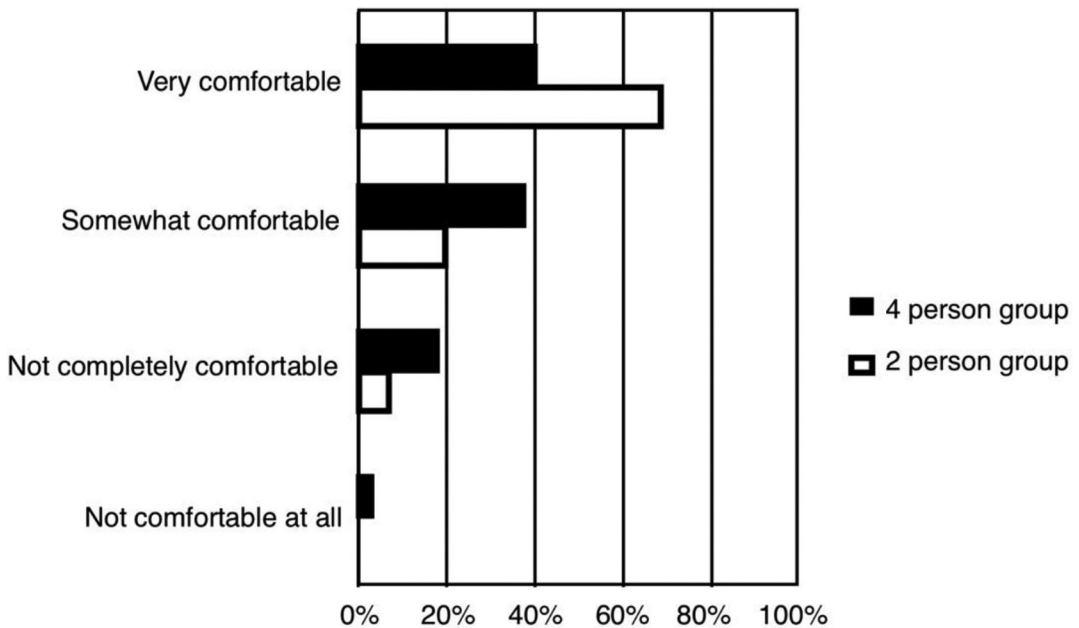


Figure 2. Comfort in online versus face to face discussion.

exchanges, and encouraging non-talkative participants were also rated more favourably in dyadic groups. When taking into consideration participant's interactions, the four-person groups were perceived as more productive.

Considering the limitations of this study, the first is that the moderators were beginners in conducting focus groups, although as mentioned earlier, they were well trained before the beginning of the study. Alternatively, we could have either use a limited number of professional moderators, but we would have to obtain a substantial budget to conduct this many groups. Instead, having a large number of moderators who each did a systematically paired set of interviews brought additional value to the study. However, having only a limited amount of experience among the moderators does limit the applicability of our results, and it would be interesting to see if follow-up studies using a smaller number of more experienced moderators would generate different results.

Regarding data analysis and the grid comparisons in particular, some improvements could be addressed in future research. As noted in the methods section, the moderators completed three grids on various aspects of two- and four-person groups. The content for the three grids was adapted from the literature review in Morgan and Lobe (2011). A limitation for the second grid on moderating issues was some moderators wrote more than others did. In retrospect, moderators could have been given instructions that are more detailed on the amount of verbal evaluations that justified their numerical evaluation of the experience.

For the third grid, including moderators' analysis of the transcriptions they had done, they had to count the number of unique ideas, number of relevant comments, number of off-topic comments, etc. The present groups were conducted in various languages because the moderators were international students, and often recruited participants who spoke their own language. In order not to lose data, we asked the moderators to write transcriptions in their own languages, whilst all the grids were completed in English. The use of multiple languages for the transcripts creates a limitation because we were unable to do

systematic coding or thematic analysis. However, as mentioned earlier, previous studies that coded and analysed transcriptions found no differences in content across different types of interviews.

The issues raised by comparing the coding of interviews in different formats point to larger questions about comparing the effectiveness of alternative techniques for doing focus groups (or individual interviews, for that matter). At this time, we are not aware of any method for determining the quality of the data produced by multiple types of interviewing. One possible strategy, however, would be to have expert judges assess the quality of transcripts from interviews that were conducted using different methods.

Another limitation concerns our post-group online surveys, where participants' evaluations demonstrated a slight preference for dyadic groups. We believe post-focus group evaluation surveys are a good way to measure the nature of participants' interactions and their comfort level. However, to find out more about the quality of the interactions, how they really felt to participants, and the differences between the two groups, perhaps a different format could be introduced. In future research, the post focus group evaluation could include also qualitative online interviews with some of the participants to provide a deeper understanding of the issues.

A different set of limitations that creates options for future research concerns the topic of the current research and the moderating style that was used. One way to extend the issues investigated here would be to apply this design to topics that are systematically different from those addressed in this study. For example, working with more sensitive topics might affect either the difference between dyadic and four-person interviews or the effectiveness of videoconferencing. Alternatively, more controversial topics, and especially those that require managing disagreement, might well generate a different interactive dynamic than we encountered. In addition, other styles of moderating assign a more active role to the interviewer than that used here, and it would be interesting to see how this affects both the dynamics of dyadic and larger groups and the experience of online moderating.

In general, the current research tells us that both participants and moderators feel more at ease with online dyadic groups than four-person groups. Still, we want to be cautious in promoting dyadic groups as the more manageable form of group discussion for successful online research, especially as four-person groups were more productive in the sense of unique ideas and relevant comments. Further, four-person groups were also rated as generating more of each kind of interaction. We do not know, however, whether these aspects of four-person groups were affected by the online environment. Therefore, future research could feature a basic comparison of four-person offline and four-person online groups to address specific logistical and moderating issues. Such a study could also pay special attention to finding ways that best offline practices could be applied to online discussions using video platforms.

Conclusions

Our aim in this article has been to report a systematic comparison of four-person focus groups and two-person dyadic interviews conducted in an online format. We have addressed various research design issues, including logistics, moderating, and interaction issues to present the various advantages of one or the other form of data collection, while also illustrating the value of online focus groups. Most of the advantages that we located favoured two-person over four-person groups, with the notable exception of the larger groups producing more ideas that moderators rated as unique and relevant.

Overall, online qualitative data collection is becoming ever more widely used. The current research reinforces this trend by illustrating the value of online, video-conferencing focus groups. As with any new form of data collection, video-conferencing focus group will require methodological research to determine their strengths and limitations, and this study also provides a number of new techniques for pursuing that goal.

Disclosure statement

No potential conflict of interest was reported by the authors.

Notes on contributors

Bojana Lobe is an Assistant Professor at the Faculty of Social Sciences, University of Ljubljana (UL), where she teaches various methods courses, including Social Science Data Collection and Digital Technologies. Her research interests include online qualitative research methods, integration of qualitative and quantitative methods online, qualitative comparative analysis, researching children's experiences online with mixed methods. She has authored a book *Integration of Online Research Methods* and several chapters and articles on conducting online focus groups and interviews. She is a member of the research programme Social Science Methodology, Statistics and Informatics at UL. Since 2006, she has been actively involved in researching children and youth experiences with internet and digital technologies through various projects (EU Kids Online, Mladi na netu, Small Children (0-8) and Digital Technologies, COST Action The digital Literacy and Multimodal Practices of Young Children, Kids' Digital lives in Corona times (KiDiCoTi)A comparative mixed-methods study on digital practices, safety and well-being).

David L. Morgan is a professor emeritus in Department of Sociology at Portland State University. He is a sociological social psychologist, who is widely known for his work on focus groups, including his books, *Focus Groups as Qualitative Research*, and *Basic and Advanced Focus Groups*. He has also worked extensively on mixed methods, including a book for Sage, *Integrating Qualitative and Quantitative Methods*. Recently, he has published *Essentials of Dyadic Interviewing* for Routledge, and *A New Era in Focus Group Research*, co-edited, with Rosaline Barbour, for Palgrave.

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