Expanding Qualitative Research Interviewing Strategies: Zoom Video Communications

Lisa M. Gray
Athabasca University, lmg@ualberta.ca

Gina Wong-Wylie
Athabasca University, ginaw@athabascau.ca

Gwen R. Rempel
University of Athabasca, Alberta, grempel@athabascau.ca

Karen Cook
Athabasca University, kcook@athabascau.ca

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Abstract
The proliferation of new video conferencing tools offers unique data generation opportunities for qualitative researchers. While in-person interviews were the mainstay of data generation in qualitative studies, video conferencing programs, such as Zoom Video Communications Inc. (Zoom), provide researchers with a cost-effective and convenient alternative to in-person interviews. The uses and advantages of face-to-face interviewing are well documented; however, utilizing video conferencing as a method of data generation has not been well examined. The purpose of this paper is to examine the specific attributes of Zoom that contribute to high quality and in-depth qualitative interviews when in-person interviewing is not feasible. While video conferencing was developed to facilitate long-distance or international communication, enhance collaborations and reduce travel costs for business these same features can be extended to qualitative research interviews. Overall, participants reported that Zoom video conferencing was a positive experience. They identified strengths of this approach such as: (1) convenience and ease of use, (2) enhanced personal interface to discuss personal topics (e.g., parenting), (3) accessibility (i.e., phone, tablet, and computer), (4) time-saving with no travel requirements to participate in the research and therefore more time available for their family. Video conferencing software economically supports research aimed at large numbers of participants and diverse and geographically dispersed populations.

Keywords
Video Conferencing, Virtual Interviewing, Online Interviewing, Data Generation, Qualitative Research Methodology, Zoom Video Communications

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Expanding Qualitative Research Interviewing Strategies: Zoom Video Communications

Lisa M. Gray, Gina Wong-Wylie, Gwen R. Rempel, and Karen Cook
Athabasca University, Alberta, Canada

The proliferation of new video conferencing tools offers unique data generation opportunities for qualitative researchers. While in-person interviews were the mainstay of data generation in qualitative studies, video conferencing programs, such as Zoom Video Communications Inc. (Zoom), provide researchers with a cost-effective and convenient alternative to in-person interviews. The uses and advantages of face-to-face interviewing are well documented; however, utilizing video conferencing as a method of data generation has not been well examined. The purpose of this paper is to examine the specific attributes of Zoom that contribute to high quality and in-depth qualitative interviews when in-person interviewing is not feasible. While video conferencing was developed to facilitate long-distance or international communication, enhance collaborations and reduce travel costs for business these same features can be extended to qualitative research interviews. Overall, participants reported that Zoom video conferencing was a positive experience. They identified strengths of this approach such as: (1) convenience and ease of use, (2) enhanced personal interface to discuss personal topics (e.g., parenting), (3) accessibility (i.e., phone, tablet, and computer), (4) time-saving with no travel requirements to participate in the research and therefore more time available for their family. Video conferencing software economically supports research aimed at large numbers of participants and diverse and geographically dispersed populations.

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Face-to-face interviewing (Dicicco-Bloom & Crabtree, 2006; Gill, Stewart, Treasure, & Chadwick, 2008; Opdenakker, 2006) and in-person interviews are the traditional form of generating data in qualitative studies (Creswell, 2013). However, meeting participants in person is not feasible when they are geographically dispersed, unable or unwilling to travel, or research funding does not allow. Video conferencing may provide researchers and participants with a cost effective and convenient alternative.

The purpose of this article is to provide new insights for researchers considering Zoom as a method of data generation in qualitative research. This paper offers unique examples of participants’ experiences taking part in a semi-structured interview and researcher recommendations for best practices. Our methodological reflection describes the process of utilizing Zoom as our method of conducting qualitative interviews. Finally, we address up-to-date advantages and disadvantages of Zoom as a data generation tool. We based our reflections on a pilot study involving four individual qualitative research interviews. The interviews followed a semi-structured guide consisting of 23 questions asking participants about their experiences with a parenting intervention and four questions about their experiences participating in a Zoom interview. The interviews ranged from one to two hours and the same researcher conducted all four interviews.
Background

As technology advances, so has the qualitative research community. For example, qualitative researchers use the Internet to conduct their literature review, and software programs for data analysis and bibliographic storage and creation (Redlich-Amirav & Higginbottom, 2014). Researchers created alternatives to traditional face-to-face interviews with telephone interviews (King & Horrocks, 2010), and more recently with online technologies such as emailing (James, 2015; Mason & Ide, 2014), instant messaging (Stieger & Göritz, 2006), and chat rooms (Shapka, Domene, Khan, & Yang, 2016). Now, researchers may consider the advantages and disadvantages of video conferencing software (Fielding, 2010; Nehls, Smith, & Schneider, 2014) because of increasing accessibility to Internet services in both the developed and developing world. For example, in 2016, 87% of Canadian households reported having Internet access in their homes and 88% had access to a mobile phone (Canadian Radio-television and Telecommunications Commission, 2018). Canadian households without Internet access or a mobile phone in their home are among the lowest income families in Canada (Canadian Radio-television and Telecommunications Commission, 2018).

On a global scale, according to a report in part by the United Nations, the world’s developing countries are closing the gap by working towards universal Internet access by 2020 (Adam & Minges, 2018). At the time of this report, the 47 least developed countries still had relevantly low access to the Internet (172 million out of 1 billion); however, these countries had a high mobile subscription rate (700 million) (Adam & Minges, 2018). With this ever-growing rate, researchers will be able to gain access to wider and more diverse populations. One significant hurdle addressed by this report is that citizens in these countries do not currently possess the technical skills required to utilize the Internet (Adam & Minges, 2018). This report recommended governments taking an active role by implementing programs in conjunction with the education sector to help citizens acquire the necessary skills.

Video conferencing software allows two or more people in different locations to communicate using audio and video imaging in real time (Gough & Rosenfeld, 2006). Video conferencing software programs may have different requirements, but generally will require access to specific software, hardware, and high-speed Internet access. Researchers and participants can connect to their chosen platform using their computer, mobile telephone, or tablet and have the choice of using wireless Internet or hardwiring their computer to the Internet. There are many video conferencing platforms for the researcher to choose from, including Zoom, Zoho Meeting, Skype, Google Hangouts Meet, GoToMeeting, Cisco WebEx, Highfive Meeting, and Eyeson, to name a few. With the number of platforms available, the researcher needs to decide which program best fits their research needs, depending on budget, user ease, administrative options, and researcher’s level of comfort with the platform. Some video conferencing software, for example Skype, is free and requires both the researcher and participant to download a program. Other software such as Zoom, offers a free basic program (with the option to upgrade for a monthly or annual fee) and only the researcher is required to download the program. The participant is able to download the program to their computer or mobile application to their mobile phone, if they choose to do so.

Currently, video conferencing is typically used to save costs (Deakin & Wakefield, 2013; Sedgwick & Spiers, 2009), gain access to larger and more diverse populations (Deakin & Wakefield, 2013; Sedgwick & Spiers, 2009; Winiarska, 2017), interview more participants in a shorter amount of time by eliminating travel (Winiarska, 2017), and to reduce unpredictable circumstances, such as poor weather conditions, that would deter participants meeting face to face (Sedgwick & Spiers, 2009). Indeed, participants using video conferencing enjoy the flexibility and convenience of participating online (Deakin & Wakefield, 2013).
Sedgwick and Spiers (2009) confirmed that where participants were given a choice between video conferencing and telephone interviewing, those who chose the telephone were disappointed they could not “meet” their interviewer. Another study that used video conferencing software, asked their participants hypothetically if they would have preferred a telephone interview instead. Overall, when asked, participants preferred video conferencing (Mabragaña, Carballo-Díéguez, & Giguere, 2013). Where researchers offered email communication to participants in lieu of interviews, they preferred emailing as a faster means of communication; likewise, researchers tended to recommend a faster-paced data generation method (Mason & Ide, 2014).

Researchers who compared face-to-face versus online video conferencing interviews found the quality of the interviews did not differ from face-to-face interviews (Cabaroglu, Basaran, & Roberts, 2010; Deakin & Wakefield, 2013), and found that online participants were more open and expressive (Deakin & Wakefield, 2013; Mabragaña et al., 2013). Consistent with this perspective, participants preferred their interviewer residing in a different city because it lowered the chance of public encounters (Mabragaña et al., 2013). Although participants may be more open and expressive, the researcher needs to be aware that creating and maintaining rapport with participants may look different with video conferencing interviews than they do with face-to-face interviews (Deakin & Wakefield, 2013). The researcher’s personality and comfort level with technology may influence their ability to build rapport. Deakin and Wakefield (2013) found that in some of their video conferencing interviews that rapport was created quicker than some of their face-to-face interviews. They also commented that participants who were more reserved with their answers might affect rapport building. Deakin and Wakefield (2013) suggested exchanging several emails preceding the video conferencing interview to help build rapport.

With any form of qualitative research, the investigator needs to consider the appropriateness of the research strategies. For example, similar to considering the physical space and audio and video recording devices required for in-person interviews, researchers utilizing video conferencing software will consider possible technical difficulties and determine if they possess the appropriate skills to conduct interviews on a virtual platform (Rowe, Rosenheck, Stern, & Bellamy, 2014). Researchers seeking best practice recommendations and comparisons across video conferencing platforms will be limited because the research has focused on Skype (Deakin & Wakefield, 2013; Nehls, Smith & Schneider, 2014; Sullivan, 2012). To date, we found no peer-reviewed published studies examining other video conferencing platforms, such as Zoom, in the qualitative literature.

Zoom Video Communications Inc.

After conducting research interviews utilizing Zoom and reflecting on both the researcher and participant experiences, Zoom offers several notable advantages to qualitative researchers conducting online video conference interviews. First, unlike Skype and Adobe Connect, Zoom does not require participants to have an account or download a program. The electronic meeting invitation generated by Zoom, which can be edited and augmented to create specificity for the type of interview the researcher is conducting, has a live link that only requires a click to join the meeting. Second, Zoom has screen-sharing abilities for both the interviewer and participants, who can display documents like the research information letter or consent form for discussion. Additionally, the interviewer can display images, video clips, and other materials to launch a conversation.

Third, Zoom includes password protection for confidentiality and recording capacity to either the host’s computer or Zoom’s cloud storage. However, saving recorded interviews to the researcher’s private and secure computer or virtual storage provided by the researcher’s
academic institution enhances participant confidentiality, because data saved to a company’s cloud storage may leave data vulnerable (Buchanan & Zimmer, 2012). Health care professionals may also wish to add Zoom’s HIPAA or PIPEDA supplementary plans, for an additional monthly fee, to ensure they are HIPAA and PIPEDA/PHIPA compliant. Fourth, Zoom automatically saves the interview into two files: audio only and a combined audio video file. The reduced size of audio only files, in comparison to audio video files, facilitates ease of sharing with a transcriptionist and other research team members. This feature also supports individual choices about being recorded with audio and video or audio only. For example, if participants do not want his or her face video-recorded to protect their privacy or for personal reasons, an audio only option for the participant records the interview between the participant and interviewer. The simultaneous audio and video recording of the interviewer, with audio only recording of the participants, maintains the in-person connection between the interviewer and interviewee while respecting their wishes.

Experiences of Participants

The first author interviewed participants about their experiences participating in a six-week parenting program. At the end of the interview, the interview asked participants to evaluate and reflect upon their experiences with Zoom. The interviewer asked participants four questions regarding what they liked and disliked about participating in the Zoom interview, any suggestions for improvement, and their willingness to participate in a Zoom interview again in the future. The first author analyzed the interview data for main themes. All participants stated they enjoyed the Zoom videoconference capabilities and that they would be willing to participate in a future Zoom interview. They responded that the ease of logging in, and not being responsible for the technical or functional components of Zoom, made their experience stress free and pleasurable. They valued being able to see and connect personally with the interviewer when discussing a sensitive topic like parenting, and appreciated the option of using their computer, tablet, or cell phone for the interview. Other studies utilizing video conferencing software also highlighted that participants appreciated being able to see their interviewer when discussing a sensitive topic (e.g., Mabragaña et al., 2013; Sedgwick & Spiers, 2009). The added convenience of saving travel time for other priorities in their lives was especially important to these parents.

Overall, participants were positive about participating in the Zoom interviews. When asked what suggestions they had for the research team on how to improve participants experience in the future, their suggestions related to how the researcher could improve their overall experience rather than improvements on Zoom and their software. For example, participants stated that they would have preferred receiving the interview questions prior to the interview, be able to synchronize the Zoom invitations with their electronic calendars, and ensure the interview is limited to one hour to avoid fatigue and too much disruption with their personal schedules. Zoom does offer an option for the participants to add the Zoom meeting to their personal Outlook, Gmail or iCal calendars, which the researcher can state as a possible option in their information letter (Zoom Video Communications Inc., 2019).

Researcher Recommendations

Following analysis of participant’s evaluation of Zoom conferencing as an effective means for conducting qualitative interviewing and from the interviewer’s reflections, 10 recommendations emerged for researchers using Zoom.
1. **Test Zoom ahead of interview.** It is crucial to use Zoom with a colleague and be prepared to solve common technical difficulties that may arise. For example, participants downloading the application to their phone if they are not using the computer version of Zoom may need some technical guidance. The researcher will also need to test the audio volume before and during each interview to ensure clarity. This is best practice for any audio-recorded research interview, regardless of method.

2. **Provide technical information.** Provide participants with specific information that is important for them to know about participating in a Zoom interview in the study information letter. For example, provide options regarding what type of device they can use Zoom on, any required audio and/or visual capabilities, and the option of using a headset with a microphone.

3. **Have a backup plan.** Have a prearranged backup plan with participants in case of technical difficulties or other disturbances. If there is an unreliable Internet connection, technical difficulties such as loss of Internet connection, freezing, or other audio and video disturbances can occur. For example, in the participant information letter and at the start of the Zoom interview, remind participants that the researcher will phone them if problems arise. In addition, researchers are encouraged to allow additional interview time to accommodate for unexpected delays (Hai-Jew, 2015; Smith, 2014).

4. **Plan for distractions.** Account for interview time taken up by possible distractions when designing your interview guide. Participants may be in their home, car, or a public setting for their interview and will have distractions and noises, such as family members, pets, and doorbells. For example, another phone may ring or a child asking to go to the washroom will take necessary time away from the interview.

5. **Provide a direct link to meeting.** When a Zoom meeting is scheduled, a meeting invitation is generated with live link to the meeting. Paste this link into the email invitation to study participants. Participants will enter the online interview with one click of this link.

6. **Consider storage needs.** Researchers will benefit from budgeting time for the interviews based on how much computer data or cloud storage they have available. Depending on the video resolution, storage needs for a one-hour interview range from 23 megabytes to 623 megabytes.

7. **Hardwire computer to Internet.** If possible, hardwire the researcher’s computer to the Internet instead of using a Wi-Fi connection to secure a stronger and more stable Internet connection. Smith (2014) also suggested this recommendation after conducting a focus group utilizing video conferencing software.

8. **Uninterrupted Internet connection.** Unhook other devices connected to the researcher’s Internet provider during the interview, including Wi-Fi on cellphones and tablets, and Internet-based phones, such as magicJack. A house phone, using the same Internet connection, can cause an audio and video disturbance.

9. **Create a visual reminder.** The researcher can use a visual cue to remind them to press record when they start the interview. While Zoom offers the option to automatically record a meeting, the ethically correct strategy is to confirm consent to record from the participant.
(10) **Manage consent processes.** Before starting the interview, review the information letter and consent form (even if already signed and returned) to invite questions and ensure participants understand the research processes. Consider recording the participant’s verbal consent and interview in two separate recordings. This allows only the interview file to be forwarded to the transcriptionist.

Finally, although artificial intelligence (AI) voice recognition technology was not utilized for this current study, researchers may consider using AI software programs, such as Otter.ai and Trint. Otter, who has partnered with Zoom, is a platform that allows the user to transcribe audio recordings and has the ability to turn audio conversation to smart notes (Otter.ai, 2019). Trint is another software option that provides the user the ability to convert their recorded interviews into text. Trint also offers a search function, which gives the research ability to search their audio or video file (Trint, 2019). As new technology becomes available researchers will have the ability to incorporate new practices that aid in the speed and efficiency of the research interviewing process.

### Advantages

The most significant advantage to online video conferencing for qualitative research is accessibility to participants. Logistical factors like distance, geographical location and funding for travel, that may limit opportunities for both the researcher and participants to connect face to face, are removed (Deakin & Wakefield, 2013; Hai-Jew, 2015; Salmons, 2012; Sedgwick & Spiers, 2009; Winiarska, 2017). When neither the interviewer nor interviewees are required to travel to a certain location, there is increased flexibility for timing and length of the interviews.

Participants in this study stated they were more comfortable speaking about a personal topic like parenting in a space of their own choosing, and if both parents are participating in the same interview, they can join from different locations and not disrupt their usual work and home schedules. Further, participants may stop and exit the interview at any time, which may be less intimidating than leaving an in-person interview in an unfamiliar environment. Finally, unlike in-person interviews, participants can participate in their own convenient space, but unlike a telephone interview, they feel personally connected with their interviewer.

For interviewers, the advantages include time saving conveniences, secure data generation and storage, personal safety, and cost effectiveness without compromising a meaningful connection with the participants. Conducting interviews in their own workspace provides the interviewer with assurance of a stable Internet connection, knowing how to handle technical problems related to their environment, and being able to complete administrative duties, such as uploading interviews to their secure server for transcription and methodological journaling immediately after the interview. Zoom allows the interviewer to observe participant’s non-verbal communication and where the participant chooses to be during their interview, which may provide the interviewer with a glimpse into the participant’s life, while also considering their budget, convenience and personal health and safety.

### Disadvantages

The disadvantages to consider when using any video conferencing platform are extra costs and possible technical difficulties. Increased costs may include additional software or hardware requirements and monthly or annual fees; however, these costs are less than face-to-face interviewing that requires travel. Zoom specifically, does offer a free membership, although we recommend a paid membership to avoid company advertisements and time restrictions on interviews. Technical difficulties may arise setting up and conducting the interviews and uploading or using the interview recording. One overcomes these difficulties with time spent becoming proficient in the chosen platform.
Until recently, reluctance to participate in an online interview would have been cited as a disadvantage. However, with the rapid uptake in social media (Pew Research Center, 2017) and use of Skype (TeleGeography, 2014) choosing to use video conferencing software does not seem to negatively impact participants willingness to participate in an online research interview, especially when discussing a sensitive topic (Sipes, Roberts, & Mullan, 2019), or when working with adolescent populations (Shapka et al., 2016) and young adults (Seitz, 2016). Although the majority of Canadians have access to a private Internet connection, there is still a small percentage of Canadians who do not (Canadian Radio-television and Telecommunications Commission, 2018), which could be considered as a disadvantage to online interviewing.

While video conferencing software allows the participant and interviewer to hear and see each other, they do not occupy the same physical space resulting in missed opportunities for the researcher to observe the participant’s physical space and respond to body language and emotional cues (Cater, 2011). Additionally, while it is convenient for the participant to choose their own space, it may have distractions or lack of privacy. Similar to face-to-face interviews, external factors may distract online participants. Researchers can help to minimize distractions by choosing a private location and encouraging participants to do the same, which also helps to ensure participants privacy and confidentiality. Additionally, if researchers are concerned about privacy or voice clarity, they may choose to use a headset with a microphone rather than the computer’s audio and invite their participants to do so as well.

**Limitations and Future Research**

While all participants in this study lived in an urban setting with access to private high-speed Internet, future research could assess the success of Zoom in rural and remote communities. Although access to the Internet and a connectable device were not a limitation for this study, it may limit access to a more diverse sample and not allow some of Canada’s most vulnerable populations to participate in an online research study. Another limitation is the small sample size, which consisted of four participants, all of which were female. Further considerations could include participants residing in different time zones from the researcher and participants who have additional needs due to visual or hearing impairments (Redlich-Amirav & Higginbottom, 2014). Our study, however, warrants future methodological research with larger and more diverse sample.

**Conclusion**

Video conferencing software, such as Zoom video conferencing, helps researchers keep research costs reasonably low and enables them to gain access to larger and more diverse participant populations. This could potentially lead to more studies and advances in the qualitative research field. Utilizing Zoom, the principal investigator was able to gather rich data along with positive participant experiences thus offering support to an optimistic outlook for the use of video conferencing software as a method of data generation in qualitative interviewing. As researchers conduct more qualitative studies utilizing video conferencing software, such as Zoom, researchers will be able to share their experiences and aid future researchers to conduct high quality interviews and stay relevant in a forever-increasing digital era.
References


Author Note

Lisa M. Gray is a Counselling Psychology Ph.D. student at The University of Alberta, Canada. She is a Canadian Certified Counsellor and operates a small private practice offering online counselling services. Lisa is a qualitative researcher and her research interests include attachment theory, the parent-child relationship, parental guilt, telepsychology, and qualitative research methods. Her proposed Ph.D. research focuses on examining the impact parental guilt has on the parent-child relationship. Correspondence regarding this article can be addressed directly to: lmg@ualberta.ca.

Dr. Gina Wong is a Registered Psychologist (Alberta) and an Associate Professor in the Faculty of Health Disciplines in the Graduate Centre for Applied Psychology at Athabasca University in Alberta, Canada. Gina specializes in reproductive mental health and publishes and presents nationally and internationally on related issues from feminist and cross-cultural perspectives. Her program of research focuses on family resiliency and involves qualitative investigations into parent-child relationships and perinatal mood and anxiety disorders. She directs a limited counselling practice working with mothers. Gina also serves as an expert witness in a maternal filicide cases in Canada.

Gwen Rempel is an Associate Professor in the Faculty of Health Disciplines and Chair of Graduate Programs at Athabasca University, Canada. She conducts qualitative and mixed methods research with children, adolescents and young adults with congenital heart disease, and their parents and other family members. Gwen's clinical background is as a clinical nurse specialist in pediatric cardiology. She is a member scholar of the International Institute for Qualitative Methodology. Correspondence regarding this article can also be addressed directly to: grempel@athabascau.ca.

Dr. Karen Cook is an Assistant Professor in Faculty of Health Disciplines at Athabasca University. Her research interests include young adults with complex and life limiting conditions, improving transition from pediatric to adult care, developing a public health approach to palliative care for young adults, and Indigenous ways of knowing. Karen’s research approach uses online and patient engagement strategies within qualitative and mixed methods. Her clinical career has focused on supporting children, young adults and their families manage complex chronic and palliative conditions as a Clinical Nurse Specialist and Registered Clinical Counsellor. She is a member scholar of the International Institute for Qualitative Methodology. Correspondence regarding this article can also be addressed directly to kcook@athabascau.ca.

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