THE JOYS AND CHALLENGES OF VIDEO CONFERENCING IN RESEARCH INTERVIEWS: AN INTEGRATIVE REVIEW

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June 03, 2022

Abstract

Although researchers have long employed videoconferencing, the technology became particularly popular during the "physical distancing" measures observed during the COVID-19 pandemic, which limited social interactions and thus curtailed in-person qualitative interviews. This interview method may grow due to the increasing digitization of researchers' and participants' environments. While there is abundant literature on videoconferencing and its use in qualitative research, the result of the analyses remains scattered and lacks a unified framework to capture how researchers have covered the topic. By adopting a systematic approach, this article provides an integrative review of research conducted over the past 25 years. The result is an integrative framework that summarizes knowledge about the strengths and weaknesses of videoconferencing and provides practical guidance for researchers embarking on research projects using this tool.

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Abstract

Although researchers have long employed videoconferencing, the technology became particularly popular during the "physical distancing" measures observed during the COVID-19 pandemic, which limited social interactions and thus curtailed in-person qualitative interviews. This interview method may grow due to the increasing digitization of researchers' and participants' environments. While there is abundant literature on videoconferencing and its use in qualitative research, the result of the analyses remains scattered and lacks a unified framework to capture how researchers have covered the topic. By adopting a systematic approach, this article provides an integrative review of research conducted over the past 25 years. The result is an integrative framework that summarizes knowledge about the strengths and weaknesses of videoconferencing and provides practical guidance for researchers embarking on research projects using this tool.

Keywords: data collection, integrative review, qualitative research methodology, online interviews, videoconferencing

The Joys and Challenges of Videoconferencing in Research Interviews: An Integrative Review

Although field observation has generally been understood to require the researcher's physical presence on the site (Howlett, 2021), different methodological options are now available for organizing data collection (O'Connor & Madge, 2017; Redlich-Amirav & Higginbottom, 2014). Among these, online research methods have become increasingly popular in the past 25 years as the range of available tools has expanded (Archibald et al., 2019). The first such tools emerged in the second half of the 1990s, shortly after Netscape was introduced in 1995 as the first web browser to incorporate images and sound (Berners-Lee & Fischetti, 1999). Subsequently, Hotmail appeared in 1996 as the first free public email service. In the mid-2000s, social media entered the Internet landscape, with Facebook, YouTube, and Twitter becoming available in 2004, 2005, and 2006, respectively (Snelson, 2016). These interactive media (and the many others now available) have bolstered the rise of the Internet as a place for interaction and exchange between researchers and participants. The Internet has thus been mobilized in several disciplines to answer qualitative observational questions (Howlett, 2021). Researchers have mobilized various alternatives such as virtual ethnography¹ or "Netnography" (Schiek & Ullrich, 2019; Kozinets, 2009), email (Fritz & Vandermause, 2018), chat or instant messaging interviews (Chen & Neo, 2019; O'Connor & Madge, 2017), and videoconferencing (Gray et al., 2020; Archibald et al., 2019).

This article focuses on videoconferencing as an alternative to traditional in-person (face-to-face) interviews. Videoconferencing is an audio-visual technology that allows for

¹ Videoconferencing should be distinguished from virtual ethnography, where researchers immerse themselves in the daily lives of Internet users, for example, among users of a forum, or, generally speaking, by observation on social networks (Dewalt & Dewalt, 2011).

"real-time communication with geographically distant interlocutors via computers, tablets, or mobile devices" (Archibal et al., 2019). Although researchers have long employed videoconferencing, this technology has become particularly popular during the "physical distancing" (WHO, 2020) measures observed during the COVID-19 pandemic, which limited social interactions and thus curtailed face-to-face, qualitative interviews (Rahman et al., 2021). Thus, many researchers were driven to move toward a "socially distant" mode of data collection to continue their work (Lobe, 2020; Teti et al., 2020). Researchers have had to learn to use videoconferencing, which previously tended to be ignored or presented as a "second best" alternative to traditional interviews (Gray et al., 2020). Also, beyond the constraints posed by the COVID-19 pandemic, it seems likely that this mode of interviewing will increase in the future. Indeed, the process of digital transformation, which is already well entrenched in many societies (Hanelt et al., 2021), seems to augur that the lives of researchers and their participants will evolve in an increasingly digital context (Nowicka, 2006).

Beyond the research world, videoconferencing is increasingly being used in many private and professional spheres of contemporary societies. Also, the introduction of online research methods such as videoconferencing is proving relevant for interacting with participants dispersed across vast digital spaces with porous spatial and temporal boundaries (Hausberg et al., 2019). However, such methods imply profound changes in data collection processes, data analysis, and, most importantly, how the relationship between the researcher and the participants is developed and structured (LeBaron et al., 2018; Graffigna & Bosio, 2006). In this respect, while there is abundant and diverse literature reporting on researchers' experiences using videoconferencing, the results of the analyses remain dispersed and lack an integrative framework to capture how researchers have covered the issue (Post et al., 2020). However, such a framework could offer practical guidance to researchers interested in engaging in a particular research project via videoconferencing. This article aims to fill this gap in the literature and take stock of and structure existing knowledge in this area to identify the main trends by integrating and highlighting the hitherto scattered literature. The value of our study lies in the desire to explore the potential of videoconferencing compared to traditional face-to-face interviews and identify the points of vigilance and possible solutions to circumvent or reduce them. The study taken contributes to the vast field of qualitative research methods by providing a basis for researchers and, to varying degrees, practitioners who use videoconferencing.

In the first section of this paper, we describe our research methodology, including the methods of identifying documents in the databases; the evaluation of the documents included in the analysis, taking into account our research objectives; and, finally, the content analysis of the selected works. In the second section, we present the results of the content analysis, emphasizing the advantages and points of vigilance attributed to the use of videoconferencing. Finally, in the conclusion, we assess the contributions of this article.

METHODOLOGY

We have chosen an integrative review (Hopia et al., 2016; Whittemore & Knafl, 2005) as the analytical method for reviewing existing works on videoconferencing. By definition, an integrative review identifies, analyzes, and synthesizes research findings related to an area of interest (Post et al., 2020). Although there are many alternative methods for organizing a systematic literature review (Petticrew & Roberts, 2008), such as a meta-analysis (Cooper, 2010) or meta-synthesis (Sandelowski & Barroso, 2007), the integrative review is more relevant because it offers a much broader analysis perspective (Souza et al., 2010). An integrative review allows us to include experimental and non-experimental studies in the analysis and combine empirical and theoretical articles to fully understand the phenomenon being analyzed (Whittemore & Knafl, 2005). The approach, however, involves manipulating

"a large and varied repertoire of data" (Whittemore & Knafl, 2005, p. 547) while maintaining rigor in the process. In this regard, the presentation and explanation of this research process are crucial to legitimizing such an approach (Torraco, 2016). The guidelines for conducting an integrative review consist of five major steps: (1) identification of the problem to be analyzed, (2) a literature review, (3) an assessment of the literature, (4) data analysis, and (5) a presentation of results (Christmals & Gross, 2017; Whittemore & Knafl, 2005).

Beyond step (1), which originated with our desire to explore the validity and practicalities of videoconferencing as a data collection mode,² steps (2), (3), and (4) are summarized in the following discussion. A separate section dedicated to step (5) is presented thereafter.

Scientific papers were identified using a multi-source search tool, Exlibris Summon, offered by our home institution. This tool benefits from Big Data analyses by consolidating data from several sources. The databases available in the institutional document base come from an extensive network of providers (EBSCOhost, Proquest Abi Inform, Emerald Publishing, CAIRN Info, Science Direct). Additionally, a search option entitled "Include results from outside your library's collection" allows for a wider web search for data from other sources (e.g., open-access data from the multidisciplinary database Archive Ouverte-HAL or article titles collected via the Google Scholar tool, etc.). Also, to assign keywords in the search tool, we first read articles in the field of interest. We looked holistically for articles dealing with videoconferencing as a data collection tool and performed several search loops to iteratively identify keywords.

² The initiative was born from the distancing measures necessitated by the COVID-19 pandemic. Indeed, as part of our current research, and although we did not initially plan to use videoconferencing, it quickly became clear that we were considering using this approach to advance our work. Prior to conducting the online interviews, we wanted to ensure the validity of this mode of data collection from the existing literature, hence the initiative to write this article.

At the end of this step, we deduced a set of relevant keywords. Then, in a second step, we combined Boolean operators with the keywords in a search equation to extract articles related to the topic of interest. Finally, we employed the following search strategy:

(video-interviewing OR video-conferencing OR video teleconferencing OR visioconference OR visio-conference) AND (research methodology OR qualitative research) AND (interviews OR online interviews OR virtual interviewing OR digital interviews OR e-interviews OR e-terviews) AND (social sciences OR management OR business)

We recognize that such combinations of keywords may have some limitations. In particular, we may have omitted useful keywords that would have allowed us to identify more articles. As a result, some articles that could have been included in the analysis were excluded. Nevertheless, we intended to find as many articles as possible that addressed the topic of videoconferencing, and, more specifically, in qualitative data collection interviews. Therefore, we applied several inclusion and exclusion criteria to our search strategy to circumscribe the integrative review over a limited time period while also including articles that addressed videoconferencing in a way that was relevant to our research objectives.

First, we decided to limit the search period to the last 25 years, that is, from 1995 (01/01/1995), when the first videoconferencing tools emerged following the first web browser integrating images and sound (Berners-Lee, 1999), until December 31, 2020, in order to integrate some of the articles published during the COVID-19 crisis. In addition, the search was limited to publications written in English and French, the two languages understood by the author. Journal articles were published in a peer-reviewed journal, and thus were peer-based, to ensure a minimum degree of quality on the information collected. We also included books and book chapters. However, theses, dissertations, and conference papers were excluded from the sample. It should be noted that all of the inclusion and exclusion criteria listed above were

directly configurable in the research tool we used. Finally, the search strategy enabled us to identify 1432 articles from which other selection criteria were added by passing through a series of filters. The process of identifying and selecting articles is shown in Table 1.

Step/Filter	Action	Output
Literature review	We identified works in the databases that may	Articles retrieved from
	meet the inclusion criteria.	the databases
		n= 1432 articles
1 st filter:	After eliminating duplicate articles, we excluded	
Evaluated articles	articles that were unrelated to our research	
based on reading	objectives or had no clear relationship with our	
the title and	research objectives (this was the case for several	All the articles that met
abstract (available	articles describing clinical observation in medical	the criteria for filter 1
via the mobilized	practice and articles related to distance learning).	n=114
search tool)	We were interested in articles that justified the use	
	of videoconferencing in qualitative interviews,	
	described the implementation of this medium, or	
	reflected or reported on its advantages and	
	limitations compared to face-to-face interviews.	
2 nd filter:	We selected the articles to be included in the	All works that met the
Evaluated articles	narrative synthesis by excluding articles with	All works that met the criteria of the 2^{nd} filter
based on a full	insufficiently developed research protocols. In this	were included in the
reading of each	context, we used an iterative process to analyze the	
article	potential contributions of each article to our	narrative synthesis $n=51^{(3)}$
	research objectives.	11=31

Table I : Procedure for the Identification and Evaluation of Articles

At the end of this process, the final step of the integrative review was to analyze the content of the articles selected for the narrative synthesis. This involved looking beyond the content of the individual articles and considering them as a whole (Booth et al., 2016). Thus, we read and compared the articles to identify a unified picture. Our analysis followed Mayring's (2000) structuring content analysis approach. We chose this approach because it reduces large amounts of textual data of all types by categorizing the data. We coded relevant passages in the texts according to the category or theme system (Mayring, 2000). As suggested by Whittemore and Knafl (2005), we adopted an emergent coding approach (Krippendorff, 2012), which we applied to the 51 articles. This exercise involved an iterative reading of the

³ The articles selected from the research protocol are those numbered in the bibliography.

articles to identify similarities and differences (Braun & Clarke, 2017). For each article, we coded the article's objectives, theoretical framework, methodology, results, contributions, and avenues for future research. The length of the codes varied from one sentence to several paragraphs. We then distilled the results of the coding into different categories or themes, moving back and forth between the articles and the completed coding (Braun & Clarke, 2017). We relied on the qualitative data analysis software Nvivo starter 12 to facilitate our work. This software allows "storing information, classifying it, organizing it, and then...performing search operations" (Bazeley & Jackson, 2013). Finally, once coding was complete, the entire process grouped the content of the articles into the following four themes: (1) Financial, Spatial, and Temporal Considerations, (2) Technical Considerations, (3) Interview Quality and Data Authenticity, and (4) Ethical Considerations. These themes are presented in more detail and discussed in the following section.

RESULTS AND DISCUSSION

The results are presented and discussed according to the four themes observed in the content analysis. They allow us to identify the advantages and the points of vigilance inherent to the use of videoconferencing.

Financial, Spatial, and Temporal Considerations

Among the factors raised by researchers, let us begin with financial costs (O'Connor & Madge, 2017; Padgett, 2017; Iacono et al., 2016; Deakin & Wakefield, 2014; Cater, 2011; Chen & Hinton, 1999). Traditional face-to-face interviews may incur costs because the researcher must travel to the respondents. However, interviewing via videoconferencing reduces or eliminates such costs. Videoconferencing offers direct cost savings on transportation, lodging, and food, as well as indirect cost savings, such as the researcher saving

time by not traveling. Another convenience of videoconferencing is the logistical ease of arranging interviews that are compatible with participants' spatial and temporal availability, as participants can choose a location and time that best suits their needs (Hanna, 2012). In addition, the potential costs associated with rescheduling or canceling videoconference meetings are much lower than with face-to-face interviews (Nehls et al., 2015). Another aspect is respondents' geographic distribution (Tuttas, 2015; Archibald et al., 2019; Deakin & Wakefield, 2014; Lo Iacono, 2016; Seitz, 2016; Glassmeyer & Dibbs, 2012; Braun et al., 2017). Often, traditional face-to-face interviews are limited to a geographic area and a local population due in part to the financial and time constraints described above (Minichiello et al., 2008). Videoconferencing, on the other hand, can be mobilized for any research project where it may be useful or necessary to overcome geographic barriers (Matthews & Cramer, 2008). Videoconferencing allows researchers to transcend geographic boundaries, negating distances and eliminating the need to "visit an agreed upon location for the interview" (Rowley, 2012, p. 264). This resolves the issue of disability and accessibility for researchers who may find physical access to the field difficult.

Moreover, certain categories of participants who previously could not be included in certain research projects due to geographic distance can now be included (O'Connor & Madge, 2017; Deakin & Wakefield, 2014). As a result, researchers can expand their sample size and participant diversity by connecting, as needed, with participants from around the world, across a wide range of cultures or profiles (Burkitt, 2004). For example, Rupert et al. (2017) reported in their study that the online sample was more diverse in terms of race/ethnicity, education, and household income than the face-to-face sample. More generally, videoconferencing provides researchers with a platform for a much more democratic research process. Fleitas (1998) argued that "distance is a variable that prevents international representation of participants in most qualitative research. The Internet eliminates this barrier" (p. 286). We also agree with Deakin

and Wakefield (2014), who stated that videoconferencing offers "an opportunity to talk to otherwise inaccessible participants" (p. 5). Glogowska et al. (2011), meanwhile, supported the idea that remote interviews have "the potential to emancipate entire sections of the population that might otherwise go unheard" (p. 26). Some authors even suggested that the physical distance between researcher and participant may be more appropriate for conducting research on particularly sensitive or controversial topics (Matthews & Cramer, 2008), for example, topics involving gender identity (Sipes et al., 2019), minorities, or vulnerable groups such as victims of violence (Woodyatt et al., 2016). Studies have shown that an online environment helps researchers study these types of sensitive topics with a greater level of perceived anonymity (Neville et al., 2016). Indeed, it can be difficult to obtain candid and in-depth responses from participants on these types of topics. Another benefit of videoconferencing is making the research process more sustainable by limiting pollution created by the transportation used to get to the interviews. For example, Hanna (2012) employed videoconferencing for this purpose in her study on sustainable tourism. More generally, in organizational practices, videoconferencing can help reduce an organization's carbon footprint, for example, by reducing business travel as a way of addressing climate change (Douglas et al., 2013; Arnfalk & Kogg, 2003).

Technical Considerations

Researchers also mentioned the technical challenges of ensuring the success of a videoconference interview. Of course, the technical challenges described and their level of importance could differ from one author to another. Nevertheless, the authors converged on similar considerations. Also, although the technical issues researchers encountered may be less problematic over time due to technological advancement, the technical issues identified earlier in the literature still reflect some of the difficulties encountered today (Seitz, 2016; Deakin &

Wakefield, 2014; Hamilton, 2014; Hanna, 2012). For example, authors discussed their concerns about the risk of loss of connection or lags between video and audio (Jenner & Myers, 2019; Mirick & Wladkowski, 2019; Sipes et al., 2019; Adams-Hutcheson & Longhurst, 2017; Weller, 2017; Sullivan, 2012). Such difficulties can disrupt the interview and hinder the development of relationships with participants, potentially leading to a decrease in the richness of the data collected (Hanna & Mwale, 2017; Seitz, 2016; Deakin & Wakefield, 2014) and the quality of that data (Archibald et al., 2019; Jenner & Myers, 2019); Glassmeyer & Dibbs, 2012; Adams-Hutcheson & Longhurst, 2017).

Authors also mentioned that technical problems could be more common and disruptive when participants are uncomfortable or unfamiliar with the technology (Deakin & Wakefield, 2014; Seitz, 2016). In the latter case, this requires the researcher to explain to participants how to use the tool, thus delaying the start of the interview (Archibald et al., 2019; Lo Iacono et al., 2016). This highlights the need for researchers to be able to resolve technical issues and, if necessary, have a contingency plan in place, such as switching to the telephone (with all the limitations inherent to this type of media, including the absence of video, which can compromise the capturing of non-verbal cues). Such technical difficulties generally stem from limited access to Internet technologies (Schram et al., 2018). Indeed, reliable Internet is not always available in all countries or geographical areas. A lack of up-to-date software or hardware or low levels of digital literacy can also create difficulties (Barraket et al., 2016). Admittedly, the latter argument is less valid nowadays than in the past because the use of digital technologies is now more common. However, it remains a concern if participants belong to a group with less access to the required technology. Therefore, careful attention must be paid when designing sampling strategies (Hanna & Mwale, 2017). For example, it is important to determine whether the use of videoconferencing is well suited to the population being studied (Walker, 2013). This also highlights the need for the researcher to test the technology with the participant before beginning the interview (Gray et al., 2020; Seitz, 2016).

Beyond the technical considerations, Seitz (2016) argued that pre-interview testing builds a relationship with the participant, thereby making the exchange more relaxed during the interview. Building this connection with the participant is an essential skill for a qualitative researcher (Roulston, 2009). In traditional interviews, for example, researchers use behaviors such as shaking hands and sharing a beverage (Deakin & Wakefield, 2014) to develop a trusting relationship before the interview. In videoconference interviews, establishing a relationship with participants, especially those who are new to the videoconferencing system, is also important (Evans et al., 2010). Of course, the type of relationship to be established must be appropriate for the medium. Deakin and Wakefield (2014) and Sedgwick and Spiers (2009) suggested that the researcher initiate this relationship during the recruitment and interview planning process. Most likely, the initial interview planning and arrangements will be done by phone or email. The researcher must be precise about all aspects of the interview. Moreover, the researcher should provide details regarding the interview expectations, answer any questions that may arise, and ease any apprehensions the participant may have (Hermanowicz, 2002).

Quality of Interviews and Data Authenticity

One assertion reported in the literature is that high-quality interviews are characterized by depth of detail or richness of data (Hermanowicz, 2002). In this regard, some of the reviewed authors compared the quality of videoconference interviews to traditional face-to-face interviews. For some of these authors, the quality of responses in videoconference interviews was substantially the same as in traditional interviews (Deakin & Wakefield, 2014; Cabaroglu et al., 2010). These authors even stated that videoconference interviews were better, as the physical distance makes the participants feel more comfortable. This distance also makes participants quicker to disclose their experiences (Sipes et al., 2019; Weller, 2017). According to Deakin and Wakefield (2014), the occurrence of pauses and repetitions did not differ significantly between the two interview modes.

As with face-to-face interviews, videoconferencing allows the researcher to identify nonverbal and emotional cues such as facial expressions, voice inflections, and body gestures (Sipes et al., 2022). However, other authors mentioned that the camera only captures the head or part of the upper body, meaning some bodily cues may not always be observed (Lo Iacono et al., 2016; Strauss et al., 2001). According to Bayles (2012), "in a simple head-to-shoulder presentation, we lose a whole range of postural, gestural, and expressive movements that the body can convey, as well as the intentionality that is carried and expressed in these movements" (p. 578). In short, not all authors agreed about the quality of videoconference interviews; some authors were more positive than others. However, we feel that capturing as many non-verbal cues as possible throughout the interview is useful. Bekkering and Shim (2006) concurred, stating that "the richness of a medium depends on the availability of instant feedback, the use of multiple cues or body language to convey a wide range of concepts and ideas" (p. 104). Therefore, nonverbal cues can provide the researcher with information that can enrich the participant's verbal responses (Christianson, 2018; Ferran & Watts, 2008). According to Seitz (2016), the potential limitations of videoconferencing can be overcome by listening very carefully to the participant's voice and watching their facial expressions (Jarrett et Liu, 2018). For example, according to Licoppe and Morel (2012) and Grayson et al. (2003), the mutual gaze between researcher and participant is an important conversational resource; the researcher should also deliberately use their own facial expressions to convey an understanding of the participant's emotions (Seitz, 2016).

The authors also discussed the importance, both for participants and researchers, of choosing a disturbance-free interview environment (Lo Iacono et al., 2016). The authors mentioned different types of disturbances that could interfere with the smooth operation of the interview and could reduce the richness of the data. For example, they discussed "flaming" (Rodham & Gavin, 2006) or "Zoom bombing" (Hern, 2020), refer to the sudden intrusion into a virtual meeting by an uninvited person whose sole purpose is to disrupt the meeting by using profanity or other unwelcome behavior. This type of disruption can also occur when the physical location (of the researcher or participant) is accessible to non-participants, who may interrupt the exchange, potentially contributing to discontinuity of the interview and a loss of data richness (Glassmeyer & Dibbs, 2012). As a result, interviews should be conducted in environments that minimize disruptions to reduce the impact of self-censorship (Weller, 2017), improve interview flow, and improve the depth of responses (Seitz, 2016).

The authors also focused on the authenticity and validity of the data. Indeed, not knowing exactly who is on the other side of the conversation can affect the authenticity of the data collected, as the participant's identity cannot be fully established (Lo Iacono et al., 2016; Sullivan, 2012). The proof of the participant's identity appears more obvious in traditional face-to-face interviews than in videoconference interviews. Indeed, how can the researcher be sure that the person who consented to participate in the interview is the same person who attends the interview? In this regard, videoconferencing fares better than other remote data collection methods (telephone, email, and other digital data collection methods) because videoconference interviews allow the participant to be seen and heard. Also, it is possible to ask the participant to present identification to the camera (Lo Iacono et al., 2016), although this may not be the best way to establish a relationship with the participant. Still, it at least provides a level of validity because the participant is personally authenticated in some way. Another method is to cross-reference participant identities through social media (Sullivan, 2012). Since

many people today use social networks (such as LinkedIn, Facebook, or Twitter), participants' identities are likely available for verification. However, attempting to verify a participant's identity online can be subject to bias, given the existence of "fake profiles" or false identities online (Kozinets, 2019). In addition, this practice raises an ethical issue that requires the researcher to explicitly notify the participant of this verification process when obtaining the participant's consent to participate in the research.

Ethical Considerations

Superficially, the ethical considerations associated with videoconferencing are similar to those of traditional face-to-face interviews (Lo Iacono et al., 2016). Nevertheless, some considerations are unique to videoconferencing because the interaction is mediated through technology (Lee, 2001). Thus, some authors have reported ethical considerations related to participant consent and confidentiality.

The Participant's Consent

Obtaining consent from participants is crucial in videoconference interviews (Lo Iacono et al., 2016). Gray et al. (2020) mentioned that researchers must not only obtain participants' consent to participate in the interview, they must also obtain consent for recording the interview. These arguments lead to the issue of informed consent, defined as the agreement that an individual gives to the researcher, by signing a document, after being informed of the methodology, purposes, and use of data in a research study (Gray et al., 2020). Informed consent avoids many practical problems. For example, it mitigates the risk to the researcher if what is collected can be used as evidence in legal proceedings. Informed consent also addresses ethical considerations, for example, the desire for publicity or anonymity of participants. Thus, before the interview, the researcher should have a discussion with the participant to answer any

questions and ensure that the participant has received all answers before the interview begins (Jenner & Myers, 2019). This conversation also ensures that the participant understands the research process (Teubner & Flath, 2019). In all cases, participants may choose to opt out because their privacy cannot be guaranteed or because of the risk of their recorded responses being disclosed beyond the original purposes (Seitz, 2016).

The Participant's Confidentiality

With videoconferencing, the participant can be interviewed in the environment of their choice, be it a personal or public space (Lobe et al., 2020; Jenner & Myers, 2019; Seitz, 2016). This can be a disadvantage because the researcher lacks control over the participant's physical environment during the interview, leading to potential confidentiality issues. Moreover, the participant may not be aware of what is within range of their camera and inadvertently disclose something they would have preferred to keep private. In some situations, a "mirror effect" can occur when images that were not intended to be seen are reflected in a mirror. Thus, videoconferencing can lead to the researcher making an unintentional virtual intrusion into the participant's home, which can result in the participant disclosing visual information that should not be disclosed (Lo Iacono et al., 2016). It is possible to address this problem by advising the participants on appropriate locations from which they can be interviewed with regard to privacy considerations (Adams-Hutcheson & Longhurst, 2017). Moreover, Teubner and Flath (2019) suggested using avatars or blurring the background to ensure privacy.

However, this mechanism may reduce trust between the researcher and participant and impede the visualization of some nonverbal cues (Deakin & Wakefield, 2014). Jenner and Myers (2019) emphasized the importance of the researcher being located in a private space, especially when the interview is about a sensitive research topic. Otherwise, the confidentiality of the interview could be challenged. Glassmeyer and Dibbs (2012) also mentioned the mistake

of conducting an interview in a shared office with colleagues present at the interview. However, researchers must choose a location where they can engage in discussion without fear of external interference or intrusion.

CONCLUSION

The multiplicity of academic journals in academic disciplines and the increasing number of intellectual contributions have led to a dispersion of thinking around certain areas of interest, which researchers are addressing (Fainshmidt et al., 2021; Hausberg et al., 2019). Thus, a summary of the literature can be useful in gaining a holistic understanding of a specific domain (Post et al., 2020). Such a summary provides an overview of existing academic knowledge (Camisón-Zornoza et al., 2004) and serves as a foundation for future research (Cronin & George, 2020). In this article, we conducted an integrative review (Hopia et al., 2016; Whittemore & Knafl, 2005) on using videoconferencing for research interviews. We identified and compiled existing work on the topic to derive benefits and areas of concern. The results showed that videoconferencing offers researchers an alternative with comparable methodological "honesty" to traditional face-to-face interviews (O'Connor & Madge, 2017), especially when opportunities for interaction with participants are hindered or limited for various reasons (Edwards & Holland, 2020), including financial costs, geographical distance, and exceptional or unforeseeable circumstances. Additionally, videoconferencing allows access to larger and more diverse populations, allowing researchers to expand their samples and adopt a more democratic research process. Another consideration supported by videoconferencing is the integration of the ecological dilemma into the research process because videoconferencing reduces the carbon footprint caused by traveling to interview locations and thus is one measure for addressing climate change (Douglas et al., 2013).

However, to take full advantage of the benefits of videoconferencing and to improve participants' experience, certain technical (Internet connectivity), relational (quality of the interviews and authenticity of the data), and ethical (participants' consent and confidentiality) considerations should be integrated. On this last point, transparency between the researcher and the participants is fundamental (Brewis & Wray-Bliss; 2008; Rhodes, 2009)). Adopting a transparent attitude makes it possible to remove certain concerns or reticence that could lead to interaction bias (Chapman & Rowe, 2001, 2022; Chapman et al., 2003). Also, based on these findings, it is important to balance the benefits and limitations associated with videoconferencing and consider that, despite some similarities with traditional interviews, videoconferencing has its own logic and rules (LeBaron et al., 2018; Salmons, 2012; Maubisson & Abaidi, 2011).

Table 2 summarizes the advantages and points of vigilance discussed by the authors with regard to using videoconferencing, as well as the solutions they suggested to address some of the challenges.

Table II : Summary of Benefits and Points of Vigilance Attributed to the Use of Videoconferencing

Benefits	Points of vigilance	Proposed solutions
	Technical considerations	
Conducting interviews -Saves time and travel costs -Logistical ease of conducting interviews that are compatible with participants' spatial and temporal availability -Reduces geographic constraints and allows researchers to reach geographically dispersed	 Limited (or non-optimal) access to Internet technologies (see the "digital divide" in certain countries or geographical areas) can lead to a loss of connection that can disrupt the interview and hinder the development of relationships with participants, which may decrease the richness of the data collected. Lack of up-to-date software or hardware Participants' low level of digital literacy and lack of familiarity with the tool 	 Consideration of the "digital divide" in the design of sampling strategies. For example, it is important to determine whether the use of videoconferencing is suitable for the study population. Need to test the technology with the participant before the interview, especially with participants who are new to the videoconferencing system Be able to provide technical support to participants Have an emergency solution in place, such as switching to the phone in case of technical difficulties
participants	Interview quality and authenticity of the data	
 -Circumvention of exceptional or unpredictable circumstances (crises, conflicts, etc.) -Expanded sample size and diversity of participants -Inclusion of populations that could not previously be reached in some research projects -Online environments are ideal to cover sensitive topics with a greater level of perceived anonymity -Addresses the ecological dilemma, reducing the carbon footprint by limiting pollution caused by transportation 	 Some body cues or non-verbal communication may not be observed because the participant's image is often only visible from the waist up. Videoconferencing limits the researcher's ability to assess the participant's environment, which often provides rich contextual data to situate the interview during the data analysis phase. Risk of disruptions during the interview, which may interfere with the smooth conduct of the interview and decrease the richness of the data Risk that the collected data may be inauthentic and, therefore, invalid since the identity of the participant cannot be fully established due to the distance between the researcher and the participant 	 Lack of body or non-verbal cues can be overcome by listening very carefully to the participant's voice and watching their facial expressions. The researcher will also need to use their own facial expressions to convey an understanding of the participant's emotions. The researcher should establish a relationship during the recruitment and interview planning process that will make the conversation more relaxed during the interview process, especially for conversations on sensitive topics. The researcher and participant should choose an environment that minimizes disruptions to reduce the incidence of self-censorship, improve the flow of the interview, and enhance the richness/depth of responses. Verifying the identity of the participant by presenting identification to the camera, which implies that the researcher should have signaled this verification beforehand when obtaining consent to participate in the research
	Ethical considerations	
 Interactions with the participants/respondents Reveals more personal information on sensitive or controversial topics Removes the bias associated with the physical presence of the interviewer by encouraging the expression of deepest feelings 	 Importance of obtaining the participant's consent Risk of invasion of privacy 	 -Signing an informed consent document before the interview period. This attests to the participant's agreement to participate in the interview. The researcher should provide details about the interview expectations, answer any questions that may arise, and ease any apprehensions the participant may have. -Educate the participant about choosing an appropriate interview location with respect to privacy considerations -The researcher and participant should choose a location where there will be no fear of external interference or intrusion during the interview, especially when the interview involves a sensitive research topic. -The risk of privacy invasion can be reduced by appropriate planning.

Finally, by presenting an alternative to traditional face-to-face interviews, videoconferencing offers a way to establish co-presence with participants without losing connection or the need to reach the field (Knott, 2019). The idea of "being there," which has long been considered "the only fully recognized model for observing the field" (Hannerz, 2003, p. 202), now appears outdated (Irani, 2019). Researchers can now work from any location thanks to technological advancements. Access to a wide range of social activities provides new research opportunities and original data to understand new or unknown social phenomena, for example, communities of practice, telecommuting, and remote/distance working (Fernandez et al., 2014; Douglas et al., 2013), networking, and social media. Digital technology opens up new ways of accessing the field and more and more data sets. It renews subjects for study by enabling the observation of entire sections of the experience of individuals and organizations. The promises linked to Big Data not only heighten the enthusiasm of data scientists but also arouse the interests of social scientists, particularly those in management sciences, who are concerned with the daily activities and traces left on the Web by individuals and organizations (Lénardi, 2020).

Therefore, the objective of this article was not to prove that the videoconference interview mode could entirely replace the so-called "traditional" mode. Nor was it to approach videoconferencing as a new phenomenon, although the new realities of the COVID-19 pandemic may have further stimulated its use. On the contrary, we felt that exploring the potential of videoconferencing interviews would be useful. Indeed, the digital transformation and the diversity of methodological approaches—as well as the strong reaffirmations that they raise regarding the place of theory, the status of data, the role of researchers, and the importance of context (Boukala & Proulx, 2020; Martinet & Menger, 2019)—urge us to question the conditions for conducting research "on" and "with" digital tools beyond post-pandemic realities. Identifying the benefits and limitations of these tools allows researchers to frame

subsequent research (Cronin & George, 2020), make thoughtful decisions for answering specific questions, or overcome particular methodological challenges (Kistruck & Shantz, 2021).

References

- Adams-Hutcheson G. et Longhurst R. (2017). « At least in person there would have been a cup of tea: Interviewing via Skype ». *Area*, 49(2), 148–155. **[1]**
- Archibald M., Ambagtsheer R., Casey M. et Lawless M. (2019). « Using Zoom
 Videoconferencing for Qualitative Data Collection: Perceptions and Experiences of
 Researchers and Participants », *International Journal of Qualitative Methods*, 18, 1–8.
 [2]
- Bayles M. (2012). « Is Physical Proximity Essential to the Psychoanalytic Process? An Exploration Through the Lens of Skype? », *Psychoanalytic Dialogues*, 22(5), 569–85.
 [3]

Bazeley P. et Jackson K. (2013). Qualitative data analysis with NVIVO, Sage, London.

- Berners-Lee T. et Fischetti M. (1999). Weaving the Web : The Original Design and Ultimate Destiny of the World Wide Web by its Inventor, Harper, San Francisco.
- Braun V., Clarke V. et Gray D. (2017). Innovations in qualitative methods. In Gough, B.
 (Ed.), *The Palgrave handbook of critical social psychology* (pp. 243–266). Basingstoke, England: Palgrave Macmillan.
- Booth A., Sutton A. et Papaioannou D. (2016). Systematic Approaches to A Successful Literature Review. Sage Publications Ltd. London.
- Boukala M. et Proulx S. (2020). « Politique et reconfiguration des méthodes de sciences humaines et sociales à l'ère de la transition numérique ». *Parcours anthropologiques*, 15, 27-38.
- Burkitt I. (2004). « The time and space of everyday life ». Cultural Studies, 18/2-3, 211–27.
- Cabaroglu N., Basaran S. et Roberts J. (2010). « A comparison between the occurrence of pauses, repetitions and recasts under conditions of face-to-face and computer-

mediated communication: A preliminary study ». *Turkish Online Journal of Educational Technology*, 9(2), 14-23. **[4]**

- Cater J. (2011). « Skype: A cost effective method for qualitative research ». *Rehabilitation Counselors & Educators Journal*, 4(2), 10–17. [5]
- Chapman D. et Rowe P. (2002). « The influence of videoconferencing technology and interview structure on the recruiting function of the employment interview: A field experiment ». *International Journal of Selection and Assessment*, 10(3), 185–197. [6]
- Chapman D., Uggerslev K. et Webster J. (2003). « Applicant reactions to face-to-face and technology-mediated interviews: A field investigation ». *Journal of Applied Psychology*, 88(5), 944–953. [7]
- Chapman D. et Rowe P. (2001). « The impact of videoconference technology, interview structure, and interviewer gender on interviewer evaluations in the employment interview: A field experiment ». *Journal of Occupational and Organizational Psychology*, 74(3), 279-298. [8]
- Chen J. et Neo P. (2019). « Texting the waters: An assessment of focus groups conducted via the WhatsApp smartphone messaging application », *Methodological Innovations*, 12(3), 2059799119884276. <u>https://doi.org/10.1177/2059799119884276</u>
- Chen P. et Hinton S. (1999). « Realtime interviewing using the World Wide Web », Sociological Research Online, 4(3).

http://www.socresonline.org.co.uk/socresonline/4/3/chen.html [9]

Christianson, M. K. (2018). « Mapping the Terrain: The Use of Video-Based Research in Top-Tier Organizational Journals », *Organizational Research Methods*, 21(2), 261– 287. [10]

- Christmals C. et Gross J. (2017). « An integrative literature review framework for postgraduate nursing research reviews », *European Journal of Research in Medical Sciences*, 5 (1), 7-15.
- Cooper H. (2010). Research synthesis and meta-analysis. A step-by step approach, Sage, Los Angeles.
- Cronin, M. A., & George, E. (2020). « The Why and How of the Integrative Review ». *Organizational Research Methods*. https://doi.org/10.1177/1094428120935507
- Deakin H. et Wakefield K. (2014). « Skype interviewing: Reflections of two PhD researchers », *Qualitative Research*, 14(5), 603–616. **[11]**
- Dewalt K. et Dewalt B. (2011). Participant observation: A guide for fieldworkers. Altamira Press.
- Douglas A., Lubbe B. et Fabris-Rotelli I. (2013). « Travel or technology? Business factors influencing management decisions », *South African Journal of Economic and Management Sciences*, 16(3), 279-97.
- Edwards R. et Holland J. (2020). « Reviewing challenges and the future for qualitative interviewing », *International Journal of Social Research Methodology*, 23(5), 581–592. **[12]**
- Evans A., Elford J. et Wiggins D. (2010). Using the internet for qualitative research in psychology. In *Willig C. et Stainton-Rogers W.* (Eds.), The Sage Handbook for Qualitative Research (pp. 315–334), Sage, London. **[13]**
- Ferran C. et Watts S. (2008). « Videoconferencing in the Field: A Heuristic Processing Model », *Management Science*, 54(9), 1565–1578. [14]
- Fernandez V., Guillot C. et Marrauld L. (2014). « Télétravail et « travail à distance équipé »: Quelles compétences, tactiques et pratiques professionnelles ? », *Revue française de gestion*, 238, 101-118.

- Fleitas J. (1998). « Spinning Tales from the World Wide Web: Qualitative Research in an Electronic Environment". *Qualitative Health Research*, 8(2), 283–92. **[15]**
- Fritz R., Vandermause R. (2018). « Data collection via in-depth email interviewing: Lessons from the field ». *Qualitative Health Research*, 28(10), 1640–1649.
- Glassmeyer D. et Dibbs R. (2012). « Researching from a Distance: Using Live Web Conferencing to Mediate Data Collection », *International Journal of Qualitative Methods*, 11(3), 292–302. [16]
- Glogowska M., Young P. et Lockyer L. (2011). « Propriety, process and purpose: considerations of the use of the telephone interview method in an educational research study ». *High Education*, 62, 17–26. [17]
- Graffigna G. et Bosio A. (2006). « The influence of setting on findings produced in qualitative health research: A comparison between face-to-face and online discussion groups about HIV/AIDS », *International Journal of qualitative methods*, *5*(3), 55-76.
- Gray L., Wong W., Rempel G. et Cook K. (2020). « Expanding qualitative research interviewing strategies: Zoom video communications », *The Qualitative Report*, 25(5): 1292-1301. [18]
- Grayson D. et Monk A. (2003). « Are you looking at me? Eye contact and desktop video conferencing », ACM Transactions on Computer-Human Interaction (TOCHI), 10(3), 221–243. [19]
- Hanna P. et Mwale S. (2017). "I'm not with you, yet I am..." Virtual face-to-face interviews.
 In V. Braun, V. Clarke, & D. Gray (Eds.), *Collecting qualitative data: A practical guide to textual, media and virtual techniques* (pp. 256-274), Cambridge University Press, Cambridge, UK. [20]
- Hanna P. (2012). « Using internet technologies (such as Skype) as a research medium: A research note ». *Qualitative Research*, 12(2), 239–242. **[21]**

- Hanelt A., Bohnsack R., Marz D. et Antunes C. (2021). « A Systematic Review of the Literature on Digital Transformation: Insights and Implications for Strategy and Organizational Change », *Journal of Management Studies*, 58, (5), 1159-1197.
- Hausberg J., Liere-Netheler K., Packmohr S., Pakura S. et Vogelsang K. (2019). « Streams on digital transformation from a holistic business perspective: a systematic literature review and citation network analysis », *Journal of Business Economics*, 89, 931–963.
- Hermanowicz J. (2002). « The Great Interview: 25 Strategies for Studying People in Bed ». *Qualitative Sociology*, 25(4), 479-499
- Hern A. (2020). Trolls exploit Zoom privacy settings as app gains popularity, The Guardian, London. [22]
- Hannerz U. (2003). « Being there... and there... and there! Reflections on multi-site ethnography », *Ethnography*, 4(2), 201-216.
- Hopia H., Latvala E. et Liimatainen L. (2016). « Reviewing the methodology of an integrative review », *Scandanavian Journal of Caring Sciences*, 30, 662–669.
- Howlett M. (2021). « Looking at the "field" through a Zoom lens: methodological reflections on conducting online research during a global pandemic », *Qualitative Research*. https://doi.org/10.1177/1468794120985691 [23]
- Irani E. (2019). « The Use of Videoconferencing for Qualitative Interviewing: Opportunities, Challenges, and Considerations », *Clinical Nursing Research*, 28(1), 3–8. **[24]**
- Jarrett, M., & Liu, F. (2018). « "Zooming With": A Participatory Approach to the Use of Video Ethnography in Organizational Studies ». Organizational Research Methods, 21(2), 366–385. [25]
- Jenner B. et Myers K. (2019). « Intimacy, rapport, and exceptional disclosure: A comparison of in-person and mediated interview contexts », *International Journal of Social Research Methodology*, 22(2), 165–177. **[26]**

Kozinets, R. (2019). Netnography: The essential guide to qualitative social media research (3rd ed.), Sage, London.

Kozinets R. (2009). Netnography: doing ethnographic research online, Sage, London.

- Knott E. (2019). « Beyond the field: Ethics after fieldwork in politically dynamic contexts », *Perspectives on Politics*, *17*(1), 140-153.
- LeBaron, C., Jarzabkowski, P., Pratt, M. G., & Fetzer, G. (2018). « An Introduction to Video Methods in Organizational Research ». Organizational Research Methods, 21(2), 239–260. [27]
- Licoppe C, Morel J. (2012). « Video-in-interaction: "Talking heads" and the multimodal organization of mobile and Skype video calls », *Research on Language & Social Interaction*, 45(4):399–429. [28]
- Lo Iacono V., Symonds P. et Brown D. (2016). « Skype as a Tool for Qualitative Research Interviews", *Sociological Research Online*, 21(2), 103–117. **[29]**
- Lobe B., Morgan D. et Hoffman K. (2020). « Qualitative data collection in an era of social distancing », *International Journal of Qualitative Research*, 19. https://doi.org/10.1177/1609406920937875 [30]
- Martinet A. et Menger P. (2019). « La recherche en stratégie et management », *Revue Française de Gestion*, 45(285), 13-28
- Matthews J. et Cramer E. (2008). « Using technology to enhance qualitative research with hidden populations », *Qualitative Report*, 13(2), 301–15. **[31]**
- Maubisson, L. & Abaidi, I. (2011). E-terview & interview : étude comparative de méthodes de recueil de données online & offline. *Management & Avenir*, 44, 165-186. **[32]**
- Mayring P. (2000). « Qualitative content analysis », *Forum: Qualitative Social Research*, 1, 1– 10.

- Minichiello V., Aroni R., Hays T. (2008). In-depth interviewing: Principles, techniques, analysis (3rd ed.), Pearson Education, Australia.
- Mirick R. et Wladkowski S. (2019). « Skype in Qualitative Interviews: Participant and Researcher Perspectives », *The Qualitative Report*, *24*(12), 3061-3072. **[33]**
- Nehls K., Smith B. et Schneider H. (2015). Video-conferencing interviews in qualitative research. In S. Hai-Jew (Eds.), *Enhancing qualitative and mixed methods research with technology*, (pp. 140-157), IGI Global, Hershey, PA. [34]
- Neville S., Adams J. et Cook C. (2016). « Using internet-based approaches to collect qualitative data from vulnerable groups: reflections from the field », *Contemporary Nurse*, 52(6), 657–68. **[35]**
- Nowicka M. (2006). « Mobility, Space and Social Structuration in the Second Modernity and Beyond ». *Mobilities*, 1(3), 411–35.
- O'Connor H. et Madge C. (2017). Online Interviewing. In N. G. Fielding, R. M. Lee,
 & G. Blank (Eds.), *The SAGE Handbook of Online Research Methods* (pp. 416–434). SAGE Publications Ltd. London. [36]
- Padgett D. (2017). Qualitative methods in social work research (3rd ed.), Sage, Thousand Oaks, CA. [37]
- Petticrew M. et Roberts H. (2008). Systematic reviews in the social sciences: A practical guide. John Wiley & Sons.
- Lee R. (2001). « Documents of Life 2: An Invitation to a Critical Humanism ». *Field Methods*, 13(3), 297–299.
- Post C., Sarala R., Gatrell C. et Prescott J. (2020). « Advancing theory with review articles », *Journal of Management Studies*, 57(2), 351–376.
- Rahman S., Tuckerman L., Vorley T. et Gherhes C. (2021). « Resilient Research in the Field: Insights and Lessons From Adapting Qualitative Research Projects During the

COVID-19 Pandemic», International Journal of Qualitative Methods. https://doi.org/10.1177/16094069211016106

Redlich-Amirav D. et Higginbottom G. (2014). « New emerging technologies in qualitative research », *The Qualitative Report*, 19(26), 1-14.

Rodham K. et Gavin J. (2006). « The ethics of using the Internet to gather qualitative research data », *Research Ethics Review*, 2(3), 92-97. [38]
-Roulston K. (2009). Reflective interviewing: a guide to theory and ractice, SAGE, London.

- Rowley J. (2012). « Conducting research interviews ». *Management Research Review*, 35/3/4, 260–71. **[39]**
- Rupert D., Poehlman J., Hayes J., Ray S. et Moultrie R. (2017). « Virtual versus in-person focus groups: Comparison of costs, recruitment, and participant logistics », *Journal of Medical Internet Research*, 19(3), e6980. [40]
- Salmons J. (2012). Designing and conducting research with online interviews. In *Salmons, J. Cases in online interview research* (pp. 1-30), Sage, Thousand Oaks, CA. [41]
- Sandelowski, M., & Barroso, J. (2007). Handbook for synthesizing qualitative research, Springer, New York.
- Schiek D. et Ullrich C. (2019). « Using web forums for qualitative inquiries: Empirical findings on the conditions and techniques for asynchronous online group discussions », *The Qualitative Report*, 24(13), 14.
- Schram A., Friel S., Freeman T., Fisher M., Baum F. et Harris P. (2018). « Digital infrastructure as a determinant of health equity: an Australian case study of the implementation of the National Broadband Network », *Australian Journal of Public Administration*, 77(4), 829–42.

- Sedgwick M. et Spiers J. (2009). « The use of videoconferencing as a medium for the qualitative interview », *International Journal of Qualitative Methods*, 8(1), 1–11. **[42]**
- Seitz S. (2016). « Pixilated partnerships, overcoming obstacles in qualitative interviews via Skype: A research note ». *Qualitative Research*, 16(2), 229-235. **[43]**
- Sipes J., Roberts L. et Mullan B. (2019). « Voice-only Skype for use in researching sensitive topics: a research note », *Qualitative Research in Psychology*, 19 (1), 204 220. **[44]**
- Snelson C. (2016). « Qualitative and mixed methods social media research: A review of the literature », *International Journal of Qualitative Methods*, *15*(1), 1–15.
- Souza M., Silva M. et Carvalho R. (2010). « Integrative review: what is it? How to do it? », *Einstein (Sao Paulo, Brazil)*. 8(1), 102-106.
- Straus, S. G., Miles, J. A., & Levesque, L. L. (2001). The effects of videoconference, telephone, and face-to-face media on interviewer and applicant judgments in employment interviews. *Journal of Management*, 27(3) : 363–381.
- Sullivan J. (2012). « Skype: An Appropriate Method of Data Collection for Qualitative Interviews », *The Hilltop Review*, 6(1), 54–60. **[45]**
- Teti M., Schatz E. et Liebenberg L. (2020). « Methods in the time of COVID-19: The vital role of qualitative inquiries ». *International Journal of Qualitative Methods*, 19, 1609406920920962. <u>https://doi.org/10.1177/1609406920920962</u>
- Teubner T. et Flath C. (2019). « Privacy in the sharing economy », *Journal of the Association for Information Systems*, 20(3), 213–42. **[46]**
- Thomas J., Barraket J., Ewing S., MacDonald T., Mundell M. et Tucker J. (2016). Measuring Australia's digital divide: The Australian Digital Inclusion Index 2016. Melbourne: Swinburne University of Technology. <u>www.csi.edu.au/media/uploads/Australian-</u> <u>Digital-Inclusion-Index-2016.pdf [47]</u>

- Torraco R.. (2016). «Writing Integrative Reviews of the Literature: Methods and Purposes », *International Journal of Adult Vocational Education and Technology*, 7(3), 62-70.
- Tuttas C. (2015). « Lessons learned using web conference technology for online focus group interviews », *Qualitative Health Research*, 25(1), 122-133. **[48]**
- Walker D. (2013). « The Internet as a medium for health service research. Part 1 », *Nurse Researcher*, 20(4), 18-21. **[49]**
- Weller S. (2017). « Using internet video calls in qualitative (longitudinal) interviews: Some implications for rapport », *International Journal of Social Research Methodology*, 20(6), 613–625. [50]
- Whittemore R. et Knafl K. (2005). « The integrative review: updated methodology », *Journal of Advanced Nursing* 52(5): 546–553.
- WHO [World Health Organization] (2020). COVID-19: Physical distancing. <u>https://www.who.int/westernpacific/emergencies/covid-19/information/physical-distancing</u>
- Woodyatt C., Finneran C. et Stephenson R. (2016). « In-Person Versus Online Focus Group Discussions: A Comparative Analysis of Data Quality ». *Qualitative Health Research*, 26(6), 741–749. [51]