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Farzana Hayat Ahmad

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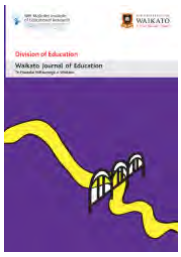

Using video-conferencing for observations and interviews: Gathering data from 'home' while studying in New Zealand

Farzana Hayat Ahmad
The University of Waikato
New Zealand

Abstract

The article documents the reflections on gathering data from the home country via distance while living and studying in New Zealand. These reflections strengthen the idea that data collection via distance could be a viable solution in circumstances where face-to-face data collection may not be an option. Three threads: negotiations, insider advantage of establishing relationships, and support systems to facilitate patterns of communication are elaborated to discuss challenges and strategies adopted to mitigate the challenges. The growing popularity and access to video-conferencing technologies indicate broader usability of such technologies to conduct data collection. This article has implications for new researchers or doctoral students who intend to collect data from home countries, especially in times of border closures due to Covid-19.

Keywords

Data gathering via distance: data collection from home; data collection using video-conferencing.

Introduction—Myself as a researcher

I consider myself a multicultural person who grew up in Pakistan, lived a decade in the UK for work and further study and is now living in New Zealand to complete the PhD journey from the University of Waikato (UoW). I wear multiple hats to fulfil a variety of roles. At a personal level, I am the decision-maker, living with a very loving, cooperative and 'foodie' husband and an inquisitive 17-year-old son. My remaining family, including my parents, in-laws and my brothers live across different time zones in the world. I stay connected using technology. At a professional level, I am a doctoral researcher in the School of Education at the University of Waikato and a part-time teacher-educator at Waikato Institute of Technology (Wintec). Several factors influenced my decision to pursue doctoral-level studies in New Zealand. The main reason was the domestic student status that tremendously reduced study costs compared to international students. Secondly, permission from immigration New Zealand to work full-time allowed me to earn and finance my study. Last but not least, the natural beauty of Aotearoa New Zealand and its people captured our hearts, and we feel lucky to have an opportunity to live and contribute to New Zealand.

Wilf Malcolm Institute of Educational Research, Te Kura Toi Tangata Division of Education, University of Waikato, Hamilton, New Zealand
ISSN: 2382-0373
Contact details: Farzana Hayat Ahmad fha7@students.waikato.ac.nz
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Before pursuing doctoral-level studies, I was based in Pakistan teaching at a Masters level on Innovative Technology in Education programme at the National University of Sciences and Technology (NUST). This programme was aimed to develop entrepreneurial innovations in educational practices and to evaluate the impact of technology on quality, equity and access to education in Pakistan. My research interests are mainly in instructional design for digital game-based learning and effective pedagogy through the use of technology to facilitate quality learning. During my time at NUST, I had a chance to spearhead two funded digital game-based learning projects at the primary school level to improve quality, accessibility and assessment in education (Ahmad et al., 2018; Ahmad & Maqsood, 2017). Both the projects yielded significant improvements in engagement and achievement in math and science learning, however, highlighted the lack of literacy skills in the majority of primary school students.

Pakistan comes under the list of countries with appalling access and literacy rates. Despite the efforts to provide universal primary education, 22.6 million children in Pakistan do not have access to education due to economic or personal reasons, cultural norms, or geographic isolation (ASER, 2017). Since 2016, the country's literacy rate declined from 60 percent to 58 percent, and the net enrolment at primary level dropped from 57 percent to 54 percent. Nevertheless, the government is committed to increasing the literacy rate from 58 percent to 70 percent within four years; one of the propositions is to utilise digital technology to provide access to education to 22.6 million out-of-school children.

A study conducted by Ahmad and Tsai (2018) suggested that self-paced digital game-based learning using low-cost tablets could provide a feasible solution to improve access and learning quality by embedding instructional strategies, elements of fun and challenge. Although the last decade has seen a phenomenal growth in the use and adoption of digital game-based learning for quality and access to education as well as a growing research in this field, there is a need to improve the research rigour and quality of language learning game designs (Xu, Chen, Eutsler, Geng, & Kogut, 2019). My PhD research aims to contribute to the field of digital game-based learning by studying the impact of commercial off-the-shelf pedagogically balanced digital games in improving early reading skills in a developing country context. The aim of my research is two-fold: first, to inform instructional designers, game developers and other stakeholders about the desirable factors that should be considered while creating reading skills development games in a particular language and cultural setting; second, to investigate the impact of such games on reading skills and the transfer of skills from one language to the other.

Because of my previous research and the fact that this study was aligned with Pakistan government's proposition of providing access and quality education using digital technologies, the research was conducted in Pakistan. The focus of this article is to discuss the aspects of successful data gathering at a distance using video-conferencing from Pakistan whilst studying in New Zealand. The following sections briefly explain the research design, access to research participants and processes used in gathering data from Pakistan. These lead to the main aspects that contributed to a successful data collection. This article will conclude with implications and recommendations for prospective students who may want to collect data from 'home' while studying in New Zealand.

My study utilised a multi-phase mixed-method research design (Creswell, 2012). During Phase 1 of the study, I developed a framework to evaluate existing commercial-off-the-shelf (COTS) games. Game selection was also a multi-staged process. During stage 1, I screened 245 games from Google PlayStore, out of which seven games were selected that closely matched the national curriculum for reading comprehension. In stage 2, I evaluated those seven games using the framework developed in Phase 1 of the study. In stage 3, I invited participants, including primary school teachers, game designers and game developers, to review only the two best games out of seven using the same framework. The one game nominated the best by this group was distributed in schools during Phase 2 of the research. The research participants were children from extremely low-income groups who never had the opportunity to enrol at mainstream schools due to poverty or age restrictions. Many students exceed the age limit of enrolling in Grade 1. These children were enrolled at different campuses of non-formal charity schools known as Out-of-School Children Schools (OSCS) run by a non-government organization (NGO) in Islamabad irrespective of their ages. A typical classroom of Grade 1 in OSCS may have students ranging from five years to sixteen years. In Phase 2, the students of varying ages (5 to 17 years of age) enrolled at the selected primary schools from Grade 1 to Grade 5 played the game

for six weeks after which digital game-based learning was discontinued and the students resumed their traditional classroom learning. Phase 3 of the research focused on measuring retention of reading skills after the discontinuation of the game. Hence, after 10 weeks of game discontinuation, students were tested again on the comprehension skills. The data collection methods consisted of pre-post-tests of reading comprehension from 288 students in the beginning and end of Phase 2, post-post-tests after 10 weeks of playing games in Phase 3, classroom observations, teacher interviews and student group interviews.

The purpose of this article is to present my decision-making and reflections on the aspects that make data collection 'from home' via distance successful irrespective of the technologies used to establish communication. The following sections include my reflections and lessons learned from collecting data using video-conferencing.

Aspects of successful data collection from home via distance

I categorise my reflection on the aspects of successful data gathering via distance into three threads: negotiations, insider advantages of establishing relationships, and support systems to facilitate patterns of communication.

Negotiations

A successful doctoral-level study requires a well-managed life that balances work, study and home life (Kossek, 2016). In my opinion, a PhD is not just studying for a degree, but a journey that touches different roles a researcher carries in life. Negotiation between boundaries of different roles, e.g., a doctoral student, mother and a partner, as well as stakeholders' roles, e.g., supervisors not only help to manage the research effectively but also reduce role-conflicts, stress and enhances well-being (Kossek, 2016) of all stakeholders involved in the research process. My reflections in this section describe the strategies to reduce role-conflicts through negotiation with supervisors and the ethics committee to follow the research guidelines and fulfil expectations at a personal and professional level.

Generally, I think supervisors expect students to go back to their home countries for data collection if the research is focused on a problem pertinent to their countries. However, my case was a little different as I wanted to collect data from Pakistan whilst living in New Zealand. A number of factors contributed to this decision. First was the domestic student status that allowed me to pay domestic fees for the PhD degree. To maintain a domestic status, PhD students must reside in New Zealand during the period of their candidature with temporary absences of no more than 12 months in total. I perceived an extended time for my data collection, which could go beyond 12 months. Hence, I wanted to design a strategy that could enable me to collect data at a distance without jeopardising the domestic student status. The second reason was family-related; my son was already adjusted to schooling in Hamilton and was preparing for NCEA examinations. Going back to Pakistan for an extended period would mean disrupting his education, which seemed unreasonable to me in my role as a mother. The third reason was the costs involved in going back to Pakistan, such as airfares, accommodation and living expenses in Pakistan during data collection. Based on these reasons, I negotiated with my supervisory team to allow distance-based data collection using video conferencing and Google Docs. Although video-conferencing has been quite prevalent around the world for more than a decade as a means of communication via distance using digital technology, initially, my supervisory team had mixed opinions about data collection via distance. Their reasons centred around management, authenticity and quality of the data. Nevertheless, based on my prior experience of spearheading research projects at my parent university (NUST), I proposed measures to ensure authenticity and quality of data collection. These measures included appointing research assistants and training them on data collection tools as well as maintaining excellent communication to discuss daily reflections on any issues pertaining to data collection. It was agreed with my supervisory panel that I would go back to Pakistan to collect data for Phase 1 where I would also utilise my time to arrange resources and hire and train research assistants

during my stay in the country. We also agreed that during Phase 2, if my supervisors were not satisfied by the quality of data, I would arrange to go back to Pakistan to collect data on my own.

The next step was to negotiate approvals from the ethics committee for the hiring of research assistants to collect data in Phase 2 and Phase 3 of the research. Approvals from the ethics committee are often based on thorough planning, justification of plans and having contingency plans in place to mitigate the challenges (Head, 2020). Since I planned the procedures of data collection in great detail before submitting my ethics application, it was approved without any reservations.

The main challenge was to arrange remuneration for the research assistants for the duration of their services along with other research expenses such as photocopying, stationery, internet, the daily commute of research assistants to the schools, etc. My role as a domestic student in New Zealand allows me to work beside continuing full-time study. At this level, I felt I had to negotiate with my supervisors to give permission to work so I could manage my research expenses and gather quality data. Even though they may not have the authority to permit or not permit me, I felt it was important to get their support. I was 'permitted' to work on the condition of not compromising on my study time. Regular meetings and consistent progress on data collection convinced my supervisors that data collection via distance was a viable approach for my study.

Another challenge was to arrange tablets to implement digital game-based learning in the participating campuses of OSC schools. Initially, my parent university agreed to lend me 50 tablets to facilitate my data collection, but later their research students needed the tablets to conduct their research. I had to negotiate and convince the university to at least lend me 30 tablets to gather data in batches. In return, I offered to deliver free seminars to share important aspects of my study to the students of MSITE (Master in Innovative Technology in Education) and guide them in designing research methodologies for their projects. This arrangement had two-way benefits—for the university students and me. I conducted one seminar during my stay in Pakistan and facilitated multiple informal question/answer sessions with their students using Zoom or Whatsapp even after my return to New Zealand.

The above reflections suggest that negotiation played a vital role in planning data collection via distance from my home country. These negotiations happened at several levels. At self-level, negotiations occurred between different roles that I carry, which resulted in the decision and planning of a feasible data collection approach, thereby reducing the role-conflict. At authority-level, negotiations involved supervisors and the ethics committee to allow me to conduct distance-based data collection without compromising research guidelines and expectations of my supervisors. The third was the resource-level negotiation pertinent to the costs, e.g., salaries, photocopying, travel, etc. and resources, such as tablets, equipment and internet for video-conferencing, survey forms, pre-and post-tests, etc. required for the study. After negotiations and approvals, the next step was to implement the plan of conducting in-person data collection for the first phase and prepare for data collection via distance for the next two phases of the research. These steps utilised my insider view of the people and organisations in Pakistan to develop strategies to improve the data gathering process. The next section presents my reflections on insider advantage to support data collection.

Insider advantages: Establishing relationships

Data collection from 'home' may be benefited by sharing similar backgrounds and establishing a special bond between 'insider' researchers and the participants (Fleming, 2018; Hellawell, 2006). Insider researchers develop an empathetic understanding with the participants often due to sharing common languages and cultural experiences with the study participants (Mercer, 2007). The key advantage for me being an 'insider' was the pre-understanding of cultural mindsets, personal values and experiences, which influenced the data collection procedures. In my previous research experiences, I found that people were more willing to participate if they saw value in it for themselves. Small incentives, not necessarily monetary, conditional or unconditional, also improve motivation and participation in a study (David & Ware, 2014); therefore, I incentivised the data collection process. Nevertheless, I sought approvals to use incentives from the ethics committee before implementing the process.

The first non-conditional incentive used in Phase 1 of the research was linked to the professional development of the participants. Before collecting data in Phase 1, I delivered a seminar at my parent

university (NUST) to introduce the game evaluation framework and the tool to evaluate English reading digital games. The seminar hosted a targeted audience for data collection, including students, game designers and developers, and English language primary school teachers. After the seminar, I asked for volunteers to evaluate the best English reading digital game out of two pre-selected games that could be distributed to the schools in the next phase. Formal ethical practices of seeking informed consent, volunteer participation and confidentiality were implemented during data collection.

To recognise the efforts of participants, I offered conditional incentives to those who volunteered in using the framework to evaluate the two games. These incentives consisted of certificates of attendance and light refreshments which helped to create a motivating and relaxed environment for data collection. I presented certificates, signed by my supervisor and myself, to the participants as a token of appreciation for their participation in the research. The participants appreciated the certificates and thought the learning would add value to their professional development.

While conducting online interviews from New Zealand during the other two phases of the research, I also arranged light refreshments for the participants with the help of my local research assistants, which resulted in creating a non-threatening and relaxed environment to share experiences. Such a non-threatening environment developed a rapport between the researcher and the participants, where the participants were willing to share their experiences in response to interview questions.

The insider advantage of knowing peoples' expectations to participate in research studies led me to incentivise the data collection process. Offering conditional or non-conditional incentives to improve the participation rate positively influenced the data collection process in my research. I gathered rich data in a timely manner, which helped me complete the intensive and lengthy data collection of three phases according to the plans. Another factor that played a significant role in successful data collection 'from home' was the patterns of communication and support systems put in place to facilitate distance-based data collection. The next section provides insights into the challenges of distance-based data collection and strategies used to mitigate those challenges by improving support mechanisms and communication between the stakeholders, including supervisors, researcher, research assistants, school management, parent university.

Support systems to facilitate patterns of communication

Popularity and ubiquitous use of video-conferencing applications in the last decade are influencing data collection options. There is a growing literature that reports on the use and affordances of video-conferencing technologies, such as Skype, Apple's FaceTime, Zoom, etc. to collect qualitative data in educational research (Lo Iacono et al., 2016; Morrison et al., 2020; Nehls et al., 2015).

Software or apps like WhatsApp, Apple's FaceTime, Skype, and Zoom are some of the popular examples of face-to-face virtual communication in real-time through technology. In recent years, video-conferencing has been used in research to gather qualitative data in the form of interviews or observations (Nehls et al., 2015; Wang & Wiesemes, 2012). However, data collection using video-conferencing is dependent on the availability and expertise to use the technology. Earlier research on using video-conferencing for gathering qualitative data recommend the researcher and the participants must have access to the required technology and the confidence to use it while adhering to ethical guidelines of the research (Deakin & Wakefield, 2014; Mann & Stewart, 2000).

In my experience, successful data collection via distance is underpinned by well-functioning support at different layers that aimed to catalyse communication between myself, research assistants and the study participants. The first challenge was the challenge of communication. It was crucial to maintain a timely communication to address any issues during the data collection process. Due to the eight-hour time difference between Pakistan and New Zealand, there could have been a delay in communicating problems, which might have encouraged data collectors to address the problem without my consent or approvals. Such decisions could raise ethical concerns or may weaken the robustness of the study design, which could diminish the reliability and quality of data. The second challenge was related to technology. Handling and charging of 30 tablets daily before distributing the game to the students was a challenging task. A single tablet losing charge in the middle of the session could have

negatively impacted the study, not only the completion of the game but it could have a negative impact on student motivation to play the game. Another technology related challenge was the reliable internet connectivity at schools. The classroom observations and interviews using video conferencing were conducted at school; therefore, it was important to ensure a reliable internet connection. One could anticipate periods of internet disruption in Pakistan due to load-shedding, weak signals, allowance of internet data package, etc. To address these challenges, I needed an intermediary support person with good decision-making and problem-solving skills in Pakistan who could liaise with research assistants in real-time to address any issues promptly and maintain excellent communication with me.

My father volunteered to facilitate research assistants for collecting data. He installed the game on 30 tablets before the commencement of game-based intervention in the schools. He also took the responsibility of charging 30 tablets and delivering them to research assistants in their assigned schools every day during the intervention period and arranging copies of survey forms, pre-and-post-tests and stationery before starting data collection. He also served as the first point of contact to resolve research assistants' operational issues concerning the travel or access to schools. Sometimes, travelling to and from schools was disrupted due to rains and floods. In such circumstances, my father provided a pick up and drop off service to the research assistants to avoid any delays in the data collection process. My father played the role of intermediary support between the research assistants and myself. He provided equipment to the research assistants to establish the video-conferencing connection.

The research assistants set up the equipment in schools to connect me to the study participants. This enabled me to observe digital game-based sessions or to conduct interviews and group discussions. During classroom observations, if I wanted to observe a student or wanted to ask a question from a particular student, I would ask the research assistant to take the iPad to that student while the other digital camera set-up in the classroom continued to record the whole class session. While my father provided operational support to the research assistants, I maintained a rigorous direct communication with them through daily team meetings at the end of each day, which highlighted any issues that needed a change of plan or required a more creative approach to handling the problems. I ensured that every decision concerning the data collection should come from me and was informed by the ethical practices of data collection. Hence, the result was exceptional coordination between us as a team to collect quality data within our anticipated timeframe. The next section consolidates key highlights arising from my reflections.

Implications and recommendations

Overall, reflections on data collection and my PhD journey strengthened the idea that data collection via distance could be feasible in circumstances where face-to-face data collection may not be an option. From this reflection there are implications for new researchers or doctoral students who intend to collect data from home countries, especially in times of border closures due to Covid-19.

Gathering data from home via distance using video-conferencing may be cost-effective, as it reduces the travel and living costs and may mimic face-to-face interviews. Still, it comes with its own set of challenges due to geographical dispersions of the research participants, and time differences if the geographic regions are spanning time zones. Although collecting data using video-conferencing may provide greater flexibility in terms of recruiting participants and scheduling interviews, its effectiveness is underpinned by negotiations with stakeholders at different levels. Negotiations include providing a strong rationale for collecting data at a distance and its feasibility in terms of costs, resources, technology, and expertise and confidence of the researcher as well as the study participants in using the technology.

Data collection from home gives researchers the advantage of being an 'insider' who can relate to the language, culture, traditions, and mindsets of participants. Insider advantage may lead to strategies to improve participant response rate and motivation to participate in the study. Knowing participants' environments and challenges beforehand could enable researchers to plan to create non-threatening situations to conduct interviews and develop methods to improve participation.

Also highlighted is the importance of support needed to improve patterns of communication between the stakeholders. Due to the ubiquitous penetration of smartphones and video conferencing

apps in Pakistan, people were familiar with their use. However, disruptions due to technical issues, e.g., poor internet connectivity, voice disruption, etc. sometimes frustrated study participants, which posed a threat to the interview process. The effectiveness of data collection via distance is highly dependent not only on the technology but a robust support system to mediate between the researcher and the interview participants. In my study, a two-tier support system helped to address the issues. The first tier of support was provided by the research assistants who established the communication between the researcher and the study participants. The second-tier of support was essential to address logistical or operational issues of data collection in real-time to avoid the lag between communication due to different time zones. Proactive planning, creative solutions and prompt decisions are vital in using video-conferencing for collecting quality data.

My reflections shared in this article may inform other doctoral students who might find resonance with their situations and find something useful to support the decision making in the gathering evidence stage of their doctoral journey. Given the affordances of video-conferencing platforms available for qualitative data collection, it is essential to continue growing, refining and sharing experiences and best practices regarding the research application of these platforms, especially when the world is facing challenges that disrupt travel across geographical boundaries.

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