

Choices in asynchronously collecting qualitative data: Moving from written responses to spoken responses for open-ended queries

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Abstract

The practice of physical distancing has become commonplace in our global society. In response, social science researchers have been forced to make use of alternative yet practical ways to collect qualitative data that would be otherwise inaccessible. Most studies of late have focused on virtually collecting asynchronous written responses to open-ended queries utilizing emails or instant messaging. However, these options have advantages and disadvantages for researchers and respondents. This study looked at the option of virtually gathering asynchronous spoken responses to open-ended queries instead of written responses for the same. At first, the respondents were asked to write replies to open-ended queries via an online document administration software. The average reply length per question per respondent was 18 words. Next, they were asked to independently record spoken replies to similar open-ended queries via an online voice recording service. The average reply length was 373 words. It was found that virtually asynchronously gathering spoken responses, as opposed to written responses, to open-ended queries led to the respondents offering more explanatory answers comprising personal opinions, beliefs, and experiences. The knowledge obtained from this study can help enrich qualitative data collection whereby researchers can gather less resource-intensive, higher-quality extended responses in a shorter amount of time from a greater number of respondents.

1. Introduction

The practice of physical distancing (i.e., social distancing) has become a globally accepted strategy intended to prevent the spread of the evolving infectious novel coronavirus disease (COVID-19) and its continually growing number of variants. Physical distancing is the restriction on indoor and outdoor gatherings where individuals maintain a physical distance of approximately two meters between each other and reduce the number of times they come into close contact with others who are not members of their immediate household (CDC, 2020b). In support of physical distancing, the Center for Disease Control and Prevention (2020a) warned that the COVID-19 disease could quickly spread from inhaling tiny airborne droplets and particles that contain the coronavirus from an infected individual or having these droplets and particles land on your eyes, nose, or mouth through splashes and sprays like a cough or sneeze. Therefore, it is undeniable that the deadly coronavirus will continue to significantly impact many aspects of human activities and social interactions for some time to come (Chandratre & Soman, 2020; Villarosa et al., 2021).

Due to the dangerous nature of the contagious coronavirus disease and its variants, gathering direct or face-to-face qualitative data is not as straightforward as before the pandemic. Researchers must consider unconventional ethical procedures, contingency plans, and alternative data collection modes to mitigate coronavirus transmission risks (Clay, 2020; Tolich & Iphofen, 2019; Villarosa et al., 2021). Rather than suspending data collection, social science researchers have been forced to devise safe, sensible, time-efficient ways to collect otherwise inaccessible qualitative data while retaining data quality and validity. Moreover, these procedures must be administered without delimiting the human interaction or the depth and quality of the collected data (Braun et al., 2017; Salmons, 2012).

Traditionally, irrespective of the field of research, in-person data collection through direct fieldwork, in-person focus groups, or face-to-face interviews have been the primary choices suitable for most purposes of qualitative data collection (Sah et al., 2020; Shepperd et al., 2021). The standardized accepted nature of in-person data collection methods has made it reasonably straightforward for researchers to compile and collate relevant qualitative data. The quintessential in-person focus groups and face-to-face interview methods have allowed social researchers to explore respondents' phenomenological or subjective perspectives of experiences, enabling researchers to understand how the respondents experience and perceive different phenomena (Braun et al., 2017; McGrath et al., 2018).

Recent studies have critiqued alternative ways of conducting in-person focus groups or face-to-face interviews during the global pandemic (Chandratre & Soman, 2020; Sah et al., 2020; Shepperd et al., 2021). They have discussed a continuum of alternative methods of collecting qualitative information intended to obtain meaningful and uncompromised data for various purposes without eliminating human interaction. For instance, advances in technology and the emergent of new virtual applications and techniques have made utilizing synchronous virtual focus groups (Fox, 2017; Gordon et al., 2021; Santhosh et al., 2021) or virtual face-to-face interviews (Hanna & Mwale, 2017), and asynchronous written responses to open-ended queries via emails (Fritz & Vandermause, 2018; Gibson, 2017; Terry & Braun, 2017) or instant messaging (Lannutti, 2017), as viable alternative qualitative data-gathering measures (McGrath et al., 2018).

Ethical concerns have likewise been raised that virtual focus groups or virtual face-to-face interviews may limit the participation of vulnerable respondents who have concerns with anonymity, who are technologically challenged, or who do not have access or have limited access to a suitable internet connection (Bird et al., 2019; Gill & Baillie, 2018). While collecting data by utilizing online focus groups (Fox, 2017; Gordon et al., 2021; Santhosh et al., 2021) or virtual face-to-face interviews (Hanna & Mwale, 2017) may influence the research conduct and design, virtual methods must still follow the same standard ethical considerations for qualitative research, and the same fundamental practices as in-person qualitative interview research methods (McGrath et al., 2018; Salmons, 2012; Tolich & Iphofen, 2019; Villarosa et al., 2021). For example, the ethical process of obtaining consent with in-person qualitative data collection methods typically requires signed consent forms. In comparison, consent with asynchronous written responses to open-ended queries is usually indicated by a clickwrap (i.e., click-accept, clickthrough, or click-to-sign) agreement following the participant information sheet or by simply submitting the completed question (Ironclad, 2021; Terry & Braun, 2017).

Nevertheless, over the past few decades, synchronous virtual focus groups or virtual face-to-face interviews have been accepted as practical, cost-effective substitutes to virtually replicate in-person focus groups or face-to-face interviews (Marhefka et al., 2020). These virtual methods still allow the researcher to see the respondents' facial expressions and body language (Bird et al., 2019; Lannutti, 2017; Sah et al., 2020; Villarosa et al., 2021). Considering the current pandemical situation, in addition to being more accessible for the interviewer and interviewees, these methods also allow all parties to mutually agree upon a convenient interview time, eliminating the need for travel as with in-person qualitative fieldwork. Even though personal interaction is limited, researchers are able to actively establish a feeling of trust through thoughtful questioning, perceptive probing, and empathy, and apply active, reflective listening techniques (Louw et al., 2011; Salmons, 2012).

Other forms of qualitative data can be likewise virtually collected, such as asynchronous written responses to open-ended queries via emails and instant messaging (Fritz & Vandermause, 2018; Gibson, 2017) or online document administration software (Terry & Braun, 2017). Unlike virtual face-to-face methods that allow researchers to actively listen to respondents in order to identify opportunities for reflection on the discussed topic to build rapport (Louw et al., 2011; McGrath et al., 2018), and to explore unknown areas within the focus of their study (McGrath et al., 2018), utilizing asynchronous written responses to open-ended queries requires conscientious organizing of the structure of the questions. The questions must be unambiguous queries that ask for directed explanation and elaboration with minimal room for interpretation error (Terry & Braun, 2017; Züll, 2016). Although lacking in the position to build rapport with the respondents, asynchronous virtual written responses to open-ended queries offer a higher degree of comfortability by effectively anonymizing replies from the respondents (Sah et al., 2020). In doing so, vulnerable respondents, as mentioned above, who may be reluctant or unable to participate in other forms of data collection may feel less inhibited with asynchronous written queries than with face-to-face or other virtual qualitative data collection methods (Fox, 2017; Terry & Braun, 2017).

Asynchronous written responses to qualitative queries offer relatively quick data collection from a more significant number of people over a broader geographical area (Braun et al., 2017). Unlike in-person or virtual video interviews that rely on direct, usually immediate interaction, asynchronous questionnaires requiring written responses present respondents with the freedom to reply by whatever means they feel relevant, make a conscious effort to deliberate over their answers, thereby producing more valid and objective responses, determine the length of the written reply, and the timing and location of their responses (Salmons, 2012). In addition to the speed and breadth of virtual data collection by employing written responses for open-ended queries, transcribing the data likewise becomes unnecessary due to the nature of written discourse (McGrath et al., 2018; Terry & Braun, 2017).

It has long been presumed that asynchronous written responses may produce more accurate and unbiased data by creating a sense of anonymity and allowing respondents ample time to respond to the questions, yet studies of late have found that questionnaires requiring written responses generate less data than other collection methods. These studies found that the number of incomplete, superficial, and often flippant responses is relatively high with asynchronous online questionnaires requiring written responses (Chandratre & Soman, 2020; Gill & Baillie, 2018; Terry & Braun, 2017). Although research into spoken responses to open-ended queries is limited (Couper et al., 2011; Semyonov-Tal & Lewin-Epstein, 2021), due to the less constraining nature of the spoken language, spoken responses to open-ended queries may be of added value in qualitative data collection (Züll, 2016).

In any case, it is surprising that due to the nature of the current pandemical crisis, asynchronously gathering spoken responses to open-ended queries has not been better implemented. To examine the glaring gap in research, this study looked at asynchronously gathering underutilized and undertheorized spoken responses to open-ended queries as opposed to written responses of the same. Considering the nature of spoken language, it was assumed that spoken responses to open-ended queries would lead to the respondents offering more explanatory replies to open-ended queries with a greater word count or reply length.

2. Methodology

2.1 Respondents

In pursuit of the above research aim, nine (n=9) extralocal teachers (i.e., a non-local non-native or native teacher who is not a citizen of the country in which they teach) of English who participated in a more extensive parent study (see Table 1) were first asked to asynchronously write responses to open-ended queries via an online document administration software. Afterward, the same respondents were asked to asynchronously record audio responses to similar open-ended queries via an online voice recording service.

Table 1. Demographics of Respondents

Respondents (n=9)	Country of origin	Racial identifier	Gender	Age range in years	First language
1	France	White or European	Male	45-54	French
2	United States	White or European	Male	55-64	English
3	United States	White or European	Male	65 and over	English
4	Netherlands	White or European	Male	25-34	Dutch
5	Canada	White or European	Male	65 and over	English
6	United States	White or European	Male	55-64	English
7	Philippines	Asian	Female	35-44	Filipino
8	Philippines	Asian	Male	25-34	Filipino
9	United States	White or European	Male	35-44	English

2.2 Data collection

This study aimed to examine the possible benefits of asynchronously offering spoken responses rather than written responses to open-ended queries. A combination of written responses and individually recorded spoken responses from similar questions were gathered. The asynchronous written responses to open-ended queries were collected via a common free web-based online word processor application that allows the user to create, edit, format, and store documents online. Similarly, the asynchronous spoken responses from similar queries were collected via an online research platform designed to collect, store, and transcribe audio responses.

In consideration of the ethical process of obtaining consent with virtual qualitative data collection, a comprehensive participant information sheet was provided. The respondents indicated their consent to participate in the study by first perusing the participant information sheet and finally submitting the completed questionnaire requiring written data collection. Likewise, for the spoken data collection, the respondents indicated their consent to participate in the questionnaire requiring spoken data collection by a clickwrap agreement following the participant information sheet and then submitting the completed questionnaire.

2.3 Platform selection

Individual websites of several virtual platforms were scrutinized along with services reviews published via the G2 platform (see the G2 website at <https://www.g2.com> for more information) for both asynchronous written and spoken data collection before deciding which platforms to utilize for each set of data collection. The first criterion for acceptance was that most individuals should be familiar with the platform. Secondly, the platform should be user-friendly; most individuals with limited technological savvy can easily navigate the platform. Next, the platform should be verified; the platform must have an accepted track record based on aggregate user ratings for written or spoken data collection services. Finally, the platform should be free of charge for individuals to access without capturing any unsolicited identifiable personal information.

In choosing the platform for asynchronous written data collection, five online platforms were evaluated (e.g., Google Forms, JotForm, Microsoft Forms, SurveyMonkey, WPForms). Although all five platforms met most of the above criteria, the one accepted platform, Google Forms (see the Google Forms website at <https://docs.google.com/forms> for more information), offered additional benefits, unimpeded respondent access, and unlimited written data collection without any additional fees. The four remaining platforms only provided restricted access and limited data collection capabilities without payment.

In choosing the platform for asynchronous spoken data collection, five platforms were also evaluated (e.g., Phonic, QuestionPro, Snap Surveys, Typeform, Voiceform). Although this technology is widely used, oral data collection platforms are still considered innovative as practical data collection methods. As with most platforms for written data collection, all platforms designed for spoken data collection that were evaluated offered limited access or services without charge. Seeing as none of the five platforms met every abovementioned criterion, the most user-friendly platform, Phonic (see the Phonic website at <https://www.phonic.ai> for more information), with the most comprehensive free option and aggregate customer service rating was selected.

2.4 Data analysis

Once the data from the asynchronous written responses to open-ended queries was compiled, it was transferred into a spreadsheet. The data was first separated by the respondent and then by question. Next, a simple calculation was applied that counted the total words in the responses for each question. Then the number of words per question was divided by the number of respondents to give the average reply length per question per respondent. The data from the asynchronous spoken responses to open-ended queries was likewise compiled. The data was then transferred into a document file format. Even though the online oral data collection platform offered complimentary AI Speech Recognition Transcription, the transcriptions were not without errors. The verbatim transcriptions needed to be cleaned and edited for readability. As with the data compiled from the written responses, the data from the spoken responses was transferred into a spreadsheet. The data was separated by the respondent and by question. A simple calculation was also applied that counted the total words in the responses for each question. Then the number of words per question was divided by the number of respondents to give the average reply length per question per respondent. The mean (\bar{x}) reply length (word count) per question per respondent for both written and spoken responses to open-ended questions were then compared.

3. Results

The respondents were asked to asynchronously write responses to open-ended queries through an online document administration software. Then the same respondents were asked to asynchronously record audio responses to similar open-ended queries through an online voice recording service. The average reply length (word count) per response per respondent is shown in Table 2 below.

Table 2. Average reply length (Word count) per response per respondent

Respondents	Written responses	Recorded responses	Total increase	Factor increase
1	15	211	196	14
2	24	185	361	16
3	18	145	127	8
4	13	182	169	14
5	21	1,183	1,162	56
6	13	262	249	20
7	14	161	147	12
8	16	673	657	42
9	28	155	127	6
\bar{x}	18	373	355	21

Notes: All figures have been rounded to the nearest whole number for simplicity.

As displayed in Table 2, the average reply length (word count) per question per respondent for the written responses was 18 words ($\bar{x}=18$), and the average reply length per question per respondent for the spoken responses was 373 words ($\bar{x}=373$). The word count from the audio recordings utilizing the online voice recording service increased by a factor of 21 over the written responses using online document administration software.

As can be seen from the following entire written response to an open-ended query about potential marginalization faced as an extralocal teacher of English in Thailand, Respondent 1 offered limited information. The total word count for this response was 13 words. The respondent did not expound nor offer any explanatory details pertaining to the query.

“No, never... Not more and not less than any of the Thai teachers.”

Yet, as seen in the following excerpt from the spoken response to a similar open-ended query about the potential marginalization faced as an extralocal teacher of English in Thailand, Respondent 1 offered much more information pertaining to the query. The total word count for this response was 223 words. The respondent expounded upon their answer and offered explanatory details about their personal experiences.

I know that many teachers have been taken advantage of, and the way I see it, when you work in Thailand as a foreign [extralocal] teacher, being hired by a school or agency... Well, it's kind of like a lottery. You may find yourself in a position where you will be respected, regarded as a real part of the team, or you may find yourself

in a position where you are basically seen as a part of the office, like furniture. If I can say it like this. I was very fortunate to have worked with people who showed me a lot of respect for my work and for myself. If I feel marginalized in one way, I would say it is just being given information at the last minute. Let's say that there is a new thing coming up at the school and usually as the foreign [extralocal] teacher... Well, the foreign teachers are the last to know. This is really the only one way I felt marginalized.

It was found that asynchronously gathering spoken responses to open-ended queries led to the respondents offering more explanatory answers concerning personal opinions, beliefs, and experiences.

4. Discussion

Even though asynchronous virtual qualitative data collection methods present innovative opportunities for researchers to collect qualitative data safely and ethically, there is still a shortage of evidence supporting the efficacy of such virtual data collection techniques (Chandratre & Soman, 2020; Fuller, 2021; Shepperd et al., 2021). Similarly, since the beginning of the COVID-19 pandemic, research that compares the characteristics of virtual audio platforms in contrast to traditional written-based tools is still rare even with the arrival of more advanced virtual voice recording platforms, such as the oral data collection platform employed with this analysis. While traditionally, most studies support a more conventional in-person qualitative data collection strategy, queries utilizing virtual responses may be more viable data collection alternatives, especially considering the current pandemical barriers to data collection (Chandratre & Soman, 2020; Clay, 2020; Villarosa et al., 2021). In search of strategies for asynchronously collecting qualitative data, while bearing in mind the present challenges in data collection, this study looked at virtually gathering asynchronous spoken responses instead of the more common written responses to open-ended queries. The results demonstrated that collecting asynchronous spoken responses rather than written responses to open-ended queries led to the respondents offering more explanatory replies.

As shown in the previous section, the average reply length (word count) per question per respondent for the written responses was 18 words, as opposed to 373 words for the spoken responses. The word count from the audio recordings utilizing the virtual voice recording service increased by a factor of 21 over the written responses using online document administration software. Although the literature addressing virtual qualitative data collection methods is lacking when discussing asynchronous virtual spoken responses, there are possible explanations for the significant increase in word count from the written responses to the spoken responses.

Earlier studies in the beginning stages of virtual qualitative data collection felt that questionnaires requiring asynchronous written responses would offer respondents a degree of freedom to reply whenever they desired and that their answers would be methodical, more valid, and objective (Salmons, 2012). Yet, later longitudinal studies found that the number of incomplete, superficial, and frequently flippant written responses to asynchronous questionnaires was relatively high (Gill & Baillie, 2018; Terry & Braun, 2017). As can be seen with Respondent 1, their written response offered limited information. Yet, their spoken response showed much more explanatory information, which was personally connected with their experiences.

Similar to the results of this study, Fuller (2021) found that the word count or reply length of virtual voice recordings was more significant and more complete than written messages. Fuller discovered that when participants were able to offer asynchronous virtual voice recordings, they felt a sense of relief and freedom from having to type their answers. Fuller (2021) also found that the spoken responses had a marked increase in quality. The spoken responses were better organized with less digression and fewer off-topic messages and were free from most grammatical errors typically found in written responses.

Research has found that virtually gathering asynchronous spoken responses is also beneficial for respondents who desire greater anonymity, may lack the appropriate equipment, be technologically challenged, or who may struggle with typing either because of physical limitations or underdeveloped skills or who do not have access or have limited access to a suitable internet service provider (Bird et al., 2019; Choi et al., 2020; Gill & Baillie, 2018). Similarly, Ice et al. (2019) found that asynchronous virtual audio commenting decreased the feeling of social distancing and offered a sense of belonging for technologically challenged individuals or those with physical limitations or underdeveloped skills, as mentioned above.

As seen with their initial written response, Respondent 1 offered a contradictory reaction disconnected from or even dismissive of the question (Gill & Baillie, 2018; Terry & Braun, 2017), yet, in their spoken response, they emotionally engaged and personally connected to the topic. Ice et al. (2019) stated that the participants felt more involved or connected with the topic when making comments or responding via virtual audio recordings. Rasi & Vuojärvi (2017) likewise found that asynchronous virtual audio recordings created emotional engagement and personal connectivity to the topic with the respondents. As with this study, because the respondents were extralocal teachers of English directly affected by the focus of the queries, the significantly increased word count of the spoken responses over the written responses may stem from personalized psychological involvement (Ranieri et al., 2019) or engagement and inclusiveness (Choi et al., 2020) with the research topic.

As with all research, this analysis is not without limitations. The notion that contradictory answers were derived from both written and verbal responses is cause for further analysis. Additional studies are also needed to determine the generalizability of the findings of this study across other contexts, subject matter, and disciplines. As well, in-depth follow-up interviews should be conducted with the respondents to discuss their perceived reasons for the increased word count of the audio recordings over the written responses.

5. Conclusion

This study found that the option of virtually gathering asynchronous, often underutilized, and undertheorized spoken responses to open-ended queries generated high-quality explanatory answers that were more than twenty times greater in length than the written responses. Virtually gathering asynchronous spoken responses created an emotional sense of connectivity with the research topic, leading to the respondents offering more explanatory answers than with the written responses. The knowledge obtained from this study can help enrich qualitative data collection whereby researchers can gather less resource-intensive, higher-quality extended responses in a shorter amount of time from a more significant number of respondents without eliminating the human interaction that is essential in qualitative data collection and communication. In adding to the limited literature that expounds upon using virtual data gathering processes during the current pandemic, asynchronous spoken response gathering methods are likely to become a preferred choice of qualitative researchers rather than an alternative qualitative data collection method.

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