

**Using Video Technology for In-depth interviews – Lessons from the Field**

**Stream – The Use of Video in Social Science Research**

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## **Abstract**

*This paper explores the benefits of using video technology in case study research and provides a practical 'how-to' guide on utilising video technology to best advantage. Drawing from lessons learned in the field during a study on lifestyle choice and social connectiveness, the paper identifies and describes the practical considerations of video technology including the integration of video technology into the research design. In the case of in-depth, personal interviews often the researcher is faced with a limited knowledge of video technology, other than an equipment manual. However, it is often the mechanical process which is the most unnerving aspect. In this respect, sharing practical knowledge on video use in the field will assist researchers in the planning, process and application of video technology.*

## **Background**

The growing affordability of digital video cameras and improvement in the usability of the technology means that increasingly video technology presents as a useful and efficient tool for data capture. For the social researcher, video technology provides a unique and rich form of data capture, enabling collection and analysis of verbal and non verbal data. The technology also provides an efficient and highly flexible source of data collection. Educational researchers have made active use of video technology through observational and experimental research (for example see Spiers 2004; Rochelle 2000). However, while use of video technology has increased among social researchers there has little written in the way of the practical application of the technology particularly as it relates to in-depth interviews. This paper attempts to fill this gap.

## **Video Technology and Depth Interviews**

My current study is focused on understanding the way in which people's micro social worlds influence significant lifestyle decisions. In my study, I conducted in-depth interviews with 40 Australian adults who had made radical lifestyle change including significant employment and geographic changes. The interviews, which generally ran for around one to two hours, covered the respondent's life history and focused on the influence of social networks on significant lifestyle decisions. The interviews were unstructured and based on an ethnographic format whereby participants were encouraged to 'tell their stories.' The interviews were also conducted in the respondent's normal place of residence enabling an intimate and 'real life' research setting. It is important to note that for each respondent the total investment time was about five hours and this included securing and conducting each interview. In addition, there is a further four hours work in the transcription process. The interview process requires a significant investment in time and in this respect, there is little room for technological error.

## **Incorporating Video Technology in the Research Design**

Initially, the use of video technology in the case study interviews was not considered a key aspect of my research design. The DVD camera was viewed by me as ‘an available resource’ and in the early stages my focus was on capturing the audio data. It also took some time to be convinced of the reliability of the technology. As an illustration during the first series of interviews, I went to each interview with an audio tape recorder ‘just in case.’ However, overtime and as I began to review each interview it became evident that the video technology enabled data capture ‘beyond the spoken word’ and ultimately this led to the inclusion of the technology into the research design. This required consideration of the treatment and analysis of non verbal data and the emotional content of each interview. In this respect, building the video technology into the research design immediately highlighted the issue of data analysis and in turn, this highlighted the need to find an appropriate software packages to assist in data transcription and analysis. I was guided toward Transana, an open source software specifically designed for video data analysis which fully integrates video and text. Its application and operation is covered in detail later in the paper.

In addition to data treatment, the inclusion of video-based qualitative research in the study design required some consideration of how the technology could assist in producing rigorous data. For example, managing the technology to ensure data integrity is one of the many practical considerations of the video interview. As way of assisting in the rigorous application of video technology, the following section details practical tips for using the video camera in the interview setting.

### **Practical Learnings from the Interview Process**

In my experience, one of the most important aspects of managing video technology in the personal interview setting is the placement of the camera. It is important to spend time placing the camera so that the respondent is well focused from a range of angles as people will physically move quite considerably during a one to two hour interview. In the household setting, I tend to conduct my interviews at the kitchen or dining table – this provides the right height for the camera and confines the respondent to a relatively stationary position.

You may also find that some respondents will be very uncomfortable with being video recorded. It is always best to give the respondent a choice of audio or video recording. In my study, around 10%

of respondents preferred not to be video taped. However, using the DVD camera provided the benefit of either video or audio recording. For an audio recording only, it is simply a matter of turning the camera either toward yourself or some other stationary item. If respondent is to be audio recorded only, place the camera at around half way distance between yourself and interviewee. This will enable good audio capture of the data. However, the camera will still record the visual setting so beware of what you are going to view. You may find that viewing a beige curtain for four hours during the transcription process becomes somewhat tiresome!

Tripods are an important and worthwhile additional investment when using video technology for personal interviews. They assist with the camera placement and add to the professional nature of the interview process. A small, camera tripod is a relatively inexpensive investment and in many ways, it is preferable to a large professional tripod. A small tripod enables the camera to be placed on a table at face height – a large tripod requires some distance and tends to detract from the intimate setting you are trying to create in a personal interview. Relying on books or other household items to position the camera can create a physical barrier to open communication. In addition, the issue of confidence in the researcher is important. If you are spending time searching for the right item to position the camera not only time is wasted but the professional nature of the interview is somewhat tarnished.

Use any respondent reading time, for example completion of a consent form, to place and insert the tape or DVD in the camera. Make some effort in this respect as this shows to the interviewer that you know what you are doing and once again this assists in building confidence in the interview process. Physically mark each tape or DVD prior to the commencement of recording with the relevant ID information. You will need to find an appropriate pen which permanently marks DVDs as respondent identification becomes significant during the play back and transcription phase.

Most late model cameras record on an 8cm DVD rather than a mini-tape and in the transcription process, this is to great advantage. However, there are some drawbacks. The first is the time capacity of the DVD as opposed to mini-tapes. Most 8cm DVD are programmed to operate for 30 minutes, however, most personal interviews require at least one hour. In order to get the most out of each DVD you need check the playback capacity on the camera. You will find that if the camera operates on long play you will get at least one hour out of each 30 minute DVD. However, if the camera operates on short play you will only get 30 minutes recording time. If the interviews are open-ended and you operate on short play you will need to insert a new DVD half way through the interview process – this can be a significant intrusion at the crucial half way point of the interview

i.e. the respondent may have just ‘forgotten’ the camera and is beginning to truly engage in the interview process. So always operate the camera on long play – most operating manuals will provide some guidance on how to switch between long and short play modes.

You may find that 60 minutes DVDs are available however, these are very costly. In general, the 30 minute DVD range in price from \$4.50 to \$16.00 depending on the brand and whether they are re-writable. However, some online stores provide DVD products in bulk at a cost of around \$1.25 each. So like many things it pays to research the costs beforehand.

### **Benefits of Video Technology for Depth Interviews**

In my experience there are significant benefits which accrue from using video technology in personal interviews. These benefits range from the very practical elements of the interview process through to the nitty-gritty of data transcription. In the first instance, the portability of the digital camera enables use in a range of settings (i.e. indoors or outdoors) and this can be a significant consideration when conducting an interview in a respondent’s home. The portability of the camera enables the interview to be conducted without significant interruption to the daily operations of the household, for example, if there are children present you can generally work around their requirements. Digital video cameras also provide great flexibility and in this respect, size does matter.

As with most personal communication technology such as mobile phones, video cameras continue to decrease in size. This size reduction means that late model video cameras provide a relatively non-obtrusive data collection tool. For example, a recent model camera can sit on a standard dining table at face level without overly intruding on the dialogue between the interviewer and the respondent. This also leads to greater intimacy and improved confidence in the interview process. Over the interview, the camera ‘disappears’ and any initial respondent discomfort with the technology is greatly reduced. In my experience, this normally occurs around 15 minutes into the interview process and this is evidenced by an observable relaxation of the respondent. In this sense, the flexibility of the video technology and its non intrusive nature enables the interviewer to establish an open dialogue with the respondent. This in turn provides the right setting to allow the respondent to feel comfortable and confident in the interview process. In my study, the video technology assisted in gaining meaningful data on significant life events such as relationship breakdowns, bereavements, and mental and personal illness.

Many of these benefits can also be attributed to the simple taped based recording devices. However, the richness of the data particularly the emotional and non verbal content provided by the DVD camera can in no way be matched by a simple voice recording. It is in this context that video recording provides a truly unique data collection tool for the social researcher. Furthermore, there are significant advantages in the use of digital video camera in the transcription stages.

### **The Benefits of Video Technology for Data Transcription and Analysis**

One of the significant advantages of the late model digital cameras is the use of DVD technology. As mentioned previously, most late model cameras operate with 8cm DVD rather than mini-tapes which means that right from the start the data is in electronic format. This is a significant advantage over taped based video cameras whereby the transcription process is the only means by which the data becomes 'electronic.'

Most DVD cameras come with some form of playback software which enables you to view the interview as a movie, that is, in a MPEG format. In my experience, it is preferable to view the MPEG directly from the finalised DVD rather than through attaching the camera to the computer. That is, it is more expedient to simply insert the formatted DVD into the CD operating device of the computer. Once you have loaded the camera's playback software onto your computer, you can insert the finalized DVD, view it as a MPEG and save it to hard drive. As a rule of thumb, I save each MPEG under the respondent ID number and date of interview.

At this stage a software program is required that integrates video data and analysis, and enables transcription and description of content features. Transana, an open source software, is one of the few programs specifically designed for video data analysis which fully integrates video and text. Transana allows the researcher to view the video data, create a transcript and to organise important components of the data and attach keywords. It also enables the creation of the waveform of the audio. The following diagram illustrates the general functions of Transana.



As is shown in the screen capture, Transana enables you to playback the video data (as per the top right hand screen) and transcript the verbal data (as is shown in the bottom left hand screen). You can create time links for each section of the transcript so that you can automatically locate the corresponding video frame for each transcribed section. This is a major advantage to taped based audio transcription. Furthermore, the transcripts can be saved as separate documents and opened in compatible Windows programs such as Word.

In my experience, the transcription process for a one and half hour interview is around four hours per interview. Obviously, this is highly dependent on the individual transcribers skill but the use of Transana makes the task reasonably straight forward even for a relatively slow typist. It also takes away the uncertainty of an unclear audio tape. The program also operates with an easy stop and start mechanism which includes an automatic rewind function. Furthermore, preliminary content analysis can commence simultaneously with the transcription process. And while transcribing is still a very manual and time consuming task, Transana provides a reasonably efficient and effective way of turning the interview data into information.

## **Conclusion**

In my experience, there are significant advantages to using video technology in social science research. In terms of data analysis the benefits are considerable. Firstly, the DVD camera enables easy transfer of the audio and video data directly onto a personal computer. Secondly, using software such as Transana means the transcription is linked directly to the video data and thirdly, as a researcher you can undertake preliminary content analysis the data during the transcription process. The extent to which this improves on the audio taped personal interview is significant. Furthermore, video technology can significantly aid in the interview setting particularly if simple and consistent procedures are followed.

## **References**

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