

Tech Tips: Using Video Management/ Analysis Technology in Qualitative Research

J.A. Spiers

J.A. Spiers, RN. PhD, International Institute for Qualitative Methodology, Faculty of Nursing, University of Alberta, Edmonton, Alberta, Canada

Abstract: This article presents tips on how to use video in qualitative research. The author states that, though there many complex and powerful computer programs for working with video, the work done in qualitative research does not require those programs. For this work, simple editing software is sufficient. Also presented is an easy and efficient method of transcribing video clips.

Keywords: observational research, video research, data collection, Imovie

Citation Information:

Spiers, J. A. (2004). Tech tips: Using video management/ analysis technology in qualitative research. *International Journal of Qualitative Methods*, 3(1). Article 5. Retrieved [INSERT DATE] from http://www.ualberta.ca/~iiqm/backissues/3_1/pdf/spiersvideo.pdf

As digital video cameras continue to drop in price and the technology becomes more and more user-friendly, video becomes a more attractive data collection strategy. Video technology has unique properties that allow researchers to capture and reflect complex phenomena from a variety of perspectives. Observational research using video data collection has been a staple at the International Institute for Qualitative Methodology for years. Some examples include Jan Morse's work on comforting and enduring behaviors in emergency rooms and her recent micro analytic work on facial analysis that links behavioral indices of the transitions between enduring and suffering with the narrative (see *Qualitative Health Research Volume 13 (8)* for an article on this topic). Marnie Rutledge is currently working on *Dance as research: The experience of*

surrender. Her research process drew from interpretive phenomenological, and arts-based methodologies. Through creative dance experiences, the participants in the project explore and negotiate ideas about surrender using movement, in order to understand and represent how it is that the person/self experienced surrender through dance. She is curious about what the body was able to understand and express that might be different from intellectual, thoughtful reflections. Her work not only involves videotaping dancers (using three cameras from different angles), but video taping the participants as they watch themselves on video. My current study is focused on reconceptualizing the notion of denial according to teenagers living with diabetes, their parents and within the health care consultation.

In my study, after interviewing teenagers about their experiences, I give them a camera and ask them to make a movie about what it is like living with diabetes. The teen participants have loved this. Some have used the camera as a personal diary. Some have become reporters and interviewed family, friends, and teachers. Some have made motivational tapes about how to live with diabetes. They just about all show processes of poking their fingers to test their blood sugars, and injecting insulin. The huge advantage of these videos is that the teens were in control, and we have been able to obtain glimpses beyond the “public face” that so many of them tried to maintain within the original interview. Of course, some of the video data are stilted and seem to present only what the teen thinks I want to hear about. Other segments are a little chilling, with stories about stigma and ostracism. Lastly, I video tape these teens as they go through a nursing consultation in order to identify the communicative strategies the nurses use to support the teen’s effort and challenge the teen’s “denial” or resistance. I originally wanted to also videotape the dietician and counselor as well as the physician consultations but these

professionals were not comfortable with that, so, I did non-participant observation instead.

There is an ever expanding body of wisdom about issues of representation, perspective, interpretation and rigor in video-based qualitative research. What is missing, however, is concrete information about the tips and pitfalls surrounding the management and analysis of video data. Indeed, when I conduct my workshops on using video in qualitative research, many participants come into the day expecting to hear how the newest video editing programs will simplify their research lives and, if they could only just learn the latest version of their analytic problems would be over. Worst of all are those people who have a legitimate case for video-based research, but simply have little concept of the amount of data video produces, and the difficulties of managing it, let alone making sense of it!

Over the years, we have tried various tools to edit data for analysis and dissemination. What we have learned is that the simplest way may be the best. Marnie spent several days here at IIQM working with Premiere, trying to understand enough to put together some footage for a conference presentation. After much frustration and wasted time, she sat down at one of my Apple computers with iMovie, and by the end of the morning her work was complete - from transferring from the camera to outputting the completed material. And iMovie is a free (comes pre-loaded on all new Macs), simple program that allows you to manage the data in a way that does not interfere with your analytic thinking. Marnie has created a documentary film to represent her research and includes excerpts from the movement sessions, debriefing sessions, and interviews. The editing for this video was all done on iMovie.

If you don't have Imovie (or a Mac), don't worry! There are alternatives for PC that can be had inexpensively (some new computers may even come loaded with a simple editing program.

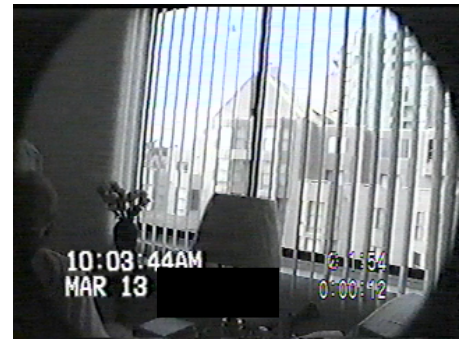
But, as long as you can import video into your computer, you can conduct your analysis in a word processing program such as MS WORD, as I did in an earlier study before the technology had become so advanced, and still do when the work warrants it. Once you have watched and re-watched your data, written descriptive notes about it and recorded a log of contents (which tells you where to find a particular action, topic of conversation, person etc) you will have a beginning idea of which segments of video are interesting and pertinent. Of course, as with all qualitative analysis, your ideas about what is significant will change as your thinking progresses. However, video data is similar to interview data in that you will tend to focus on particular sections at the beginning. Then, you need to capture on you computer those particular segments of data. Sometimes they are a few seconds, sometimes a few minutes, I don't see the need to transcribe the whole video (and many computers do not like files longer than about 8 minutes). Now, open WORD and import a movie file into your page. You then have the movie in your word document. You can flip between watching the movie and writing.

The following page is an example of what the movie/transcription page can look like;

Video Code: 112-3

Video Start Time: 00:16

Video End Time: 00:30



Topic of Conversation: compliment regarding C1’s appearance.

Context: The initial greetings have just been made. N1 has just put her bag down and is standing in front of C1.

Dialogue	Notes/Codes
00:16 N1: Look at you in your nice purple dress. I haven't seen that one for a while	Compliment, indirectly stated, impersonal person, explanation
C1: Ummmm (mumble), well, you know what it is- A friend of mine gave me this. And she's dead.	Not directly accepting compliment Offering history/context that is overlaid with negative feelings
N1: Ohh	Sympathy expression
C1: And she's been dead about five years.	Continuing with the story- looks like she wants to start a conversation about this friend
N1: Okay, well that looks nice on you.	Acknowledging story but restating compliment. Statement functions to indicate lack of interest in getting into story
C1: Thank you.	Finally accepts compliment and recognizes dead end story
N1: Did you pick up the medicine?	Abrupt topic change. Focus on activity not feelings

NOTES

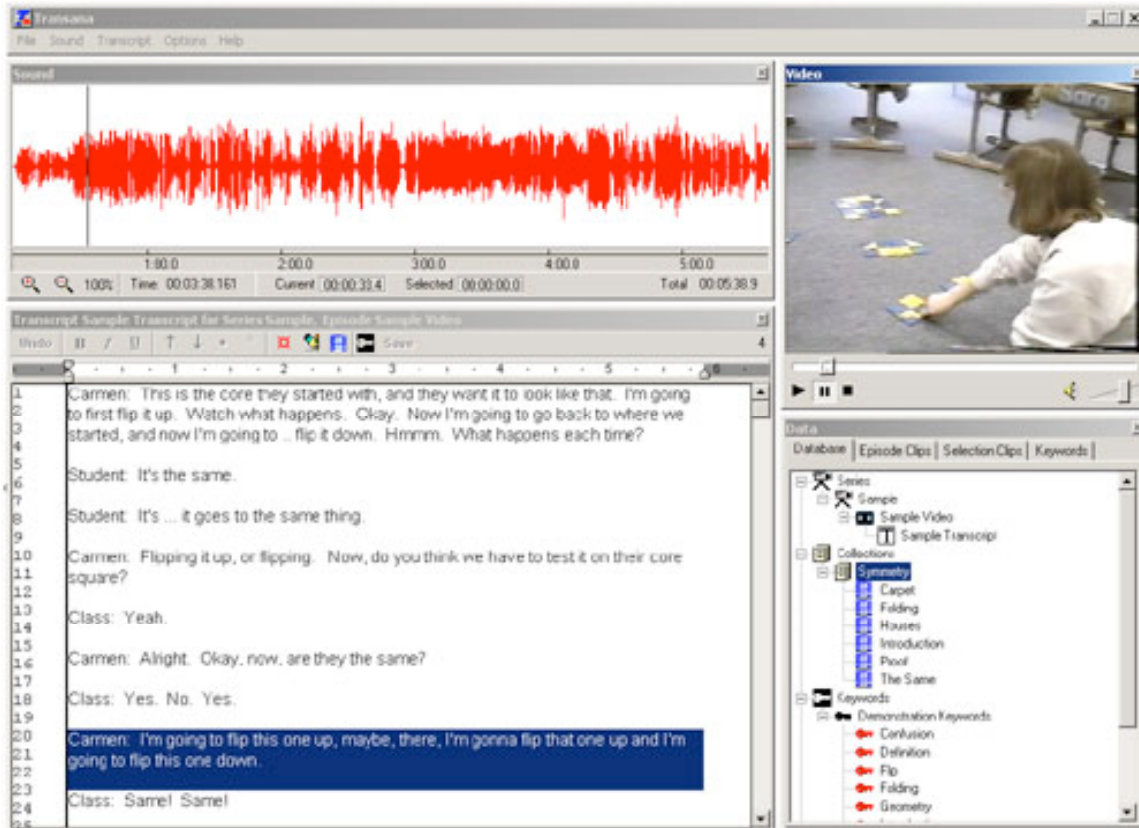
This is supposed to be a compliment. However, it is not taken as such. C1’s response is not direct in saying thank-you. Instead, she brings up the idea that the person she got it from is dead. N1 expresses her sympathy and then repeats the compliment, reinforcing her sincerity. This time, it is accepted. N1 immediately turns to the next topic. By itself, it may just appear that C1 is reluctant to accept the compliment, or feels the need to explain it, excuse it – i.e. negative face. However, in the context of what is to come, it becomes apparent that C1’s mind is very much on tragedy.

I often like using this technique, especially when I am trying to describe complex data or struggling with the analysis. I personally write dialogue or observational notes about context and behavior in normal font, then have room to write my field notes and analytic notes in italics. When the document is printed, the first frame of the movie clip is also printed—an added advantage when you want to find a particular clip. Of course, the disadvantage is that most computers are limited as to the amount of video data they can hold, and if you remove the clip from your hard drive, it will not play in word! Nevertheless, I have found that I have been able to hold enough data in order to address an analytic issue before having to transfer the data to an external source.

In my video workshops, offered at the *Qualitative Health Research Conference*, and *Advances in Qualitative Methods* as well as during *Thinking Qualitatively*, I demonstrate how easy it is to use iMovie. I am usually asked about more complex programs such as Apple's Final Cut Pro, or Adobe's Premiere. My answer: there is no reason to use those programs, when iMovie can do everything a qualitative researcher needs, and is free. Those specialty programs are designed for manipulating the video image in order to turn it into a product; the role of a qualitative researcher is not to manipulate the data for production, but to manage it and make it understandable. Simple editing features like basic transitions between clips, the ability to add titles, and maybe editing and dubbing some audio are all that are really needed. People tend to become entranced with the idea of technology. Instead, you really want the technology to work in the background, so that the data are easily managed and your thoughts can fly freely.

However, iMovie does have some limitations – there are some features that you may want, but what can you expect from a free program. But, luckily, there's a company called GeeThree Software (<http://www.geethree.com/slick/>) who make low-cost, easy to use plug-ins for iMovie (called Slick) that enable qualitative researchers to do some creative tasks. One of these allows you to do a picture-in-picture video, ideal for showing participants reflecting on their own actions. The most recent Slick release allows you to obscure faces (or other elements of the video), great for when participants or peripheral people do not want to be identified.

For those who want to use a program that integrates the video data and analysis and enables very fine transcription and description of paralinguistic features, I would recommend Transana. This program allows the researcher to view video or play audio, create a transcript that is locked to the frame in the video and to record and organize important pieces of data and attaching keywords to that data. Chris Fassnacht originally developed Transana and it is now the responsibility of [David K. Woods](#) at the Wisconsin Center for Education Research, University of Wisconsin-Madison. (see <http://www.transana.org/>). Additionally, there is an excellent discussion board to discuss issues and ideas. Currently only available for PC (they say the Mac OS-X version is on the way), it is one of the few programs specifically designed for video data analysis (and one of the best, not only because it is free but also because of its capabilities). More familiar QDA programs, such as NVIVO are, regrettably, still text based. It is possible to insert links to video data, but they do not fully integrate video and text as Transana does.



Transana Screen Capture showing (clockwise from top right) the video frame, the coding frame, the transcript, and the waveform of the audio.

Essentially, my guiding tech tip in using video analysis and management software is this: **Learn it before you need it!** Only obtain software with features you really need. Excessive features often leave you struggling with how to use the program rather than doing your analysis. Decide exactly what you need the software for -- digitizing (not necessary if you start with a digital camera), editing, management of analysis, or production. Remember, price is not necessarily reflective of usefulness to you as a researcher. Don't be seduced by a range of capabilities that you may never need.