**Blending Observational Methods: Possibilities, Strategies, and Challenges**

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**Abstract:** Qualitative researchers have used the observational strategies of video recording and participant observation to investigate specific phenomena. Although there have been recent advances in the separate use of these strategies, there is evidence that there is benefit in combining these observational approaches to study particular phenomena. The purpose of the paper is to present a discussion about the application of these observational methods as blended approaches. The authors draw on their own experience as researchers and that of others to explore how these observational strategies could be combined for use in a singular study. They provide directions for researchers who select observation as a primary research strategy.

**Keywords:** observational research, participant observation, video recording

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An important data collection approach in qualitative research is observation involving the systematic collection and examination of behaviors in a social setting (Marshall & Rossman, 1995). Two common observational strategies are participant observation, or the in-person observation by a researcher (Marshall & Rossman, 1995), and video recording of behaviors and interactions as they occur. Although observing in-person or using video cameras to record observations has obvious differences, there exists little in the literature about the purposes and variations of blending observational methods in qualitative research. Researchers in several disciplines have reported that they have used both video recording and participant observation in their research; however, there has been little documented discussion of when blending of observational methods might be utilized and the various forms in which blending of observational methods can occur. The purpose of this article is to move the discussion about the application of observational methods one step further than commonly occurs. We will first review the multiple purposes of participant observation and video recording to highlight the significant contributions of each in qualitative research. Then we will explore the specific results that can be achieved by combining these observational strategies in a singular study. We will describe challenges researchers need to consider when making decisions about combining observational strategies in qualitative research. We intend that this paper will provide directions for qualitative researchers who are considering the use of observational methods in the research process. We acknowledge we have omitted any indepth discussion of the conceptual foundations of such decisions, such as the epistemological foundations of both participant observation and video recording as data collection strategies. We direct the reader to the following provocative discussions of foundational issues and challenges with regard to observational strategies: Lomax and Casey (1998), Harel (1991), Savage (2000), and Tedlock (2000).
**Participant observation**

Participant observation has its origins in ethnography and, later, in sociology. It has been generally linked to the epistemological orientations of ethnography, ethnomethodology, and grounded theory (Ambert, Adler, Adler, & Detzner, 1995; Tsourvakas, 1997) because these methods entail naturalistic investigations of culturally-contexted social processes, such as caregiving and teaching (Muller, 1995). Participant observation provides the opportunity to collect data where it is important to capture human behavior in its broad natural context at several different times and from a multitude of perspectives (Glaser, 1996). It permits a researcher to refocus observations as the research progresses and to vary the timing and location in which observations are made. The classic stereotype of participant observation is Margaret Mead’s ethnography, in which she immersed herself in Samoan culture for an extended period of time. However, participant observation is interpreted and used by researchers in a variety of ways. Early researchers viewed participant observation as “outsiders, looking in” (Hopkins, 2002, p. 149). Recently, many researchers who have used participant observation have tended to emphasize participation over observation in their research and the pseudo-objective stance of the researcher has largely been abandoned in favor of more personal and subjective accounts of the participant observation experience (Tedlock, 2000).

The benefits of participant observation are often couched in discussions of how an observer’s accounts of naturally occurring events offer a deeper and less limited understanding of what is being studied than relying solely on participants’ explanations of what they do and why they do it. As Hammersley (1990) suggests, “to rely on what people say about what they believe and do, without also observing what they do, is to neglect the complex relationship between attitudes and
behavior” (p. 597). Participant observation enables the researcher and participants to develop the rapport and trust that is needed for participants to reveal the “backstage realities” of their experience that are generally concealed from outsiders. This was illustrated in Reimer Kirkham’s (2000) study of racist attitudes of staff nurses. The researcher used participant observation to explore inter-group relations in hospitals because she recognized that in single interviews, people often demonstrate only socially acceptable attitudes with those they fear might judge or misinterpret their practices. Over time, she developed a rapport with the nurses she observed and they revealed their racist attitudes and behaviors to her.

There have been changes recently to the use of participant observation as a data collection strategy in qualitative research. The goal of participant observation is no longer solely to describe cultural practices (Tedlock, 2000). Participant observation has been used by researchers in recent years to collect data about characteristics of participants that are not easily accessible using other methods, to identify outcomes of specific practices, and to document physiological and psychological processes. For example, Singer et al. (2000) used participant observation to obtain data about injection drug users’ practices to support and assist with interpretation of epidemiological study findings. Crabtree and colleagues observed patient-physician interactions to determine practices that led to desired outcomes. They used this data to develop a model of primary care practice organization (Crabtree, Miller, Aita, Flocke, & Stange, 1998; Miller, Crabtree, McDaniel, & Stange, 1998). Other researchers have used participant observation to study the symptom awareness of people with Alzheimer disease by observing them in their daily lives (Phinney, Wallhagen & Sands, 2002).
Traditionally, participant observation has entailed interviews and document analysis in conjunction with observation. There has been a recent trend to pair participant observation with data collection strategies other than interviews. For example, Fessey (2002) used concept mapping and digital photographs in her participant observation study of expert nursing practice.

**Video recording**

Video recording in qualitative research is typically linked with qualitative ethology and some forms of conversational analysis (Heath, 1998). Researchers commonly select video recording as a sole observational strategy to examine decontextualized sequencing of minute behaviors, concurrent behaviors, and nonverbal behaviors that are difficult to observe in real time, and to conduct detailed conversational analysis. Because we tend to ascribe lack of bias to the authoritative record that is provided by this technology, video recorded data are often presumed to be more credible and precise than what is observed by the human researcher. The use of technology allows the researcher to assume a “privileged gaze” (Atkinson & Hammersley, 1994), in which the importance of relationships with participants becomes less relevant to the collection of data. Establishing relationships with participants is important to gain their agreement to being observed and videotaped. Once the videotaping starts, however, the researcher is traditionally positioned behind the camera, observing as an outsider, no longer directly interacting in the social world of the participants. Or, in some studies, a research assistant skilled in video recording may be employed to capture the participant behaviors that are of interest and the researcher may not be present at the time of data collection.

The use of slow motion or frame-by-frame review of video recorded data facilitates the micro-analysis of behaviors and interaction patterns to develop indepth descriptions of behavior. For
example, Hewat (1998) videotaped breastfeeding mothers to identify subtle nonverbal cues of infants’ muscular tension. Detailed micro-analysis of video recorded data revealed the reciprocal effect of infant tension on maternal behavior, as well as differences in tempo and rhythm of mother and infant interactions during breastfeeding sessions. Another application of video recording is when the behavior of interest only occurs when the participant is alone; for example, if the researcher wishes to examine a patient’s response to irradiation therapy (Andersen & Adamsen, 2001).

The use of video recording also lends itself to research that is intended to investigate the progression of events or changes in behavior over extended periods of time. Video recording has been used to document changes in behavior in confused elderly following the removal of restraints (Morse & McHutchion, 1991). The ability to use varying speeds of replay in video recording often reveals changes that may be more difficult to observe in real time. For example, recordings of emergency room practices, replayed at fast speeds, revealed important changes in positioning of practitioners in response to patient cues (Morse & Pooler, 2002).

Researchers have expanded the use of video as a data collection strategy to capture aspects of the sociocultural context. By videotaping patients and nurses in a cancer unit, researchers were able to record the routines involved in cancer care and normative patterns of interactions (Andersen & Adamsen, 2001; Lotzkar & Bottorff, 2001). They discovered that factors such as the time of day and the nurse’s workload influenced the nature of their interactions with patients. Recent researchers have begun to question the distance stance that has been traditionally ascribed to video recorded data collection. Some researchers (Latvala, Vuokila-Oikkonen, & Janhonen,
2000) have termed videotaped recordings as “participant observation” because, as with
participant observation, subjectivity is an inherent aspect of video recording. Unlike the
audiotape recording of an interview, in which the tape recorder merely records conversations, the
use of a video camera in research requires continual decision making about what to observe and
record. As in the case of participant observation, video recording produces a selective
representation of the phenomenon under study. The selection of what to observe is influenced by
the researcher’s pre-existing values or theories and, define the parameters of the data to be
collected (Lomax & Casey, 1998).

**Blended approaches**

Although participant observation and video recording are both observational strategies in
qualitative research, they can provide different types of evidence. Participant observation and
video recording are usually used separately from one another; the choice between the two is
based on the study purpose. Increasingly, researchers are embarking on complex studies where a
combination of these two observational methods might be appropriate, such as one observational
strategy being used to address the limitations and extend the purposes of the other in addressing
the research goals. Although the decision to use a “blended” observational approach is one that
is ultimately linked to the overall purpose of the study, in the following sections we provide a
rationale for, and examples of, blended observational approaches, as well as possible drawbacks
and challenges of using two observational strategies.
Participant observation supplemented with video recording

When participant observation is the main data collection method, it can be supplemented with video recording for the following purposes:

1. to generate additional data that can not readily be captured by participant observation alone;
2. to document the research process and check for observer effects;
3. to direct methodological decisions; and
4. to enhance the validity of the researcher’s interpretation of in-person observations.

Video recording can add to the depth and breadth of in-person observations by providing data that the researcher is not able to access in participant observation. It can supplement field notes at times in which details of a situation may be too complex for the observer to perceive and require detailed retrospective review. For example, Evans (1998) supplemented her field observations of deaf children with video recordings of their conversations. She was unable to fully attend to the subtle nuances of signing during participant observation, but because her video recordings captured these behaviors she was able to include an analysis of signing behaviors in conjunction with her in-person observations. Harel (1991) used a video camera on a tripod as a “silent observer” (p. 449) to supplement her handwritten field notes of children’s behaviors in a classroom. This revealed that one of the children in the study demonstrated a “playful” and spontaneous behavior when he was not in the view of the teacher and researcher. The contrast between the child’s constrained behavior in the teacher’s presence and when alone with a video camera revealed important insights about the factors that promote creativity in learning concepts.
Participant observation may be supplemented with video recording as a means of documenting the research process (Ratcliff, 1999). Participants’ reactivity to the participant observer or the research process (i.e., observe effects) is a significant concern in many studies and video recordings may be used to capture this reactivity. Kolesar (1998) suggests that people with disabilities who have been recipients of institutionalized care may attempt to please researchers by behaving in ways they believe would be acceptable to the researcher’s purposes. Glaser (1996) indicated that politicians who assume that a researcher has particular political views may alter their campaign behavior to reflect this stance. Video recording such participants may reveal that their behavior changes when the researcher is not present. This, in turn, may point to the need for changes in the research design and how participant observation occurs.

Video recording may also be used as a check of the participant observer’s data collection techniques and to direct methodological decisions (Ratcliff, 1999). For example, if a researcher’s goal is to describe strategies used by nurses in the pain management of injection drug users, they may use participant observation as a primary data collection method to investigate nurses’ practices. However, researchers may benefit from the addition of video recording of patient exemplars who are experiencing pain. Detailed examination of video recordings may reveal subtle patient behaviors that elicit particular responses from nurses of which they may not be aware and that are not immediately evident to the observer. This information can be used to focus observation on the nurses’ responses. For example, Bowman (1993) videotaped children as they used computer-based interactive stories; the videotapes enabled him to refine his plans for observation, particularly the details of what behaviors he observed and the locations of the observer during participant observation. Using video
recordings, Harel (1991) was able to detect a student’s struggle to illustrate a mathematical concept; this had not been evident to the researcher as a participant observer of the student’s activities. The videotaped data indicated a need for further observations and questioning of this student.

Participant observation can be supplemented with video recording for the purpose of validating and extending the researcher’s interpretations of in-person observations; for example, as a form of member checking. Micro-analysis of video-recorded data can be compared with analysis of field notes of in-person observations. If participant observation of residents of a long term care facility revealed that they generally left canned nutritional supplements untouched at their bedside, video cameras located in a few residents’ rooms can demonstrate whether this behavior was the same when the resident was not directly observed. In addition, providing opportunities for participants to comment on supplemental video recorded data can generate additional data that can be used to refine interpretations based on participant observations (Lancy, 1993; Lincoln & Guba, 1985; Ratcliff, 1999). Beresin (1993), for example, asked teachers in her study to respond to videotapes of their interactions with children to compare the teachers’ interpretation with that of the researcher’s understanding of their behaviors that evolved from analysis of field notes.

*Video recording supplemented with participant observation*

There are situations where researchers who use video recording as their primary data collection method can benefit from supplementing their videotaped data with participant observation. This combination of data collection strategies can be used for the following purposes:
1. to provide additional data that occur outside the range of the camera and is important to the focus of the study;
2. to document the research process;
3. to optimize the collection of video recorded data; and
4. to validate the researcher’s interpretation of the videotaped data.

Studies involving videorecording as a primary data collection method may benefit from the addition of field observations, when it is important to capture behaviors that occur outside of the camera range to provide contextual and interpretive data. In order to accomplish this goal, researchers could undertake wide-ranging field work concurrently with more focused video recordings. For example, if adolescents were given a camcorder and asked to videotape their interactions at a school dance, concurrent participant observation may provide significant insights about the context and meaning of what was video taped. Supplementary field work in a video-based study may be particularly advantageous when the “inclusiveness” of videotaped data is an issue. Bottorff, Gogag, and Engelberg-Lotzkar, M (1995) collected video recordings of nurse-patient interaction in a patient room in a hospital setting. Using participant observation, she was able to observe and record significant events that occurred on the unit. She observed nurses giving reports to each other at shift change and noted their concern that a patient was “stoic”. This information was helpful in interpreting video recordings of nurses’ conversations with this patient in subsequent interactions.

Supplementary participant observation in video-based research may also be useful in documenting the research process. Data collected in participant observation can provide a
comparison of patterns of response and events that are documented by video. For example, if the focus of the research is how nurses address fluid imbalance, and a video camera captures evidence that nurses always offer extra fluids to elderly patients they assess as dehydrated, participant observation can be used to document whether nurses demonstrate similar interventions when the camera is not present. Bowman (1993) found that children who were videotaped made utterances about the presence of the video camera and the researcher. He proposes that it might have been interesting to compare the children’s responses when they were being observed in participant observation in their natural setting and when they were being videotaped to identify the nature and extent of their reactivity.

Researchers using video recording as their primary data collection strategy can begin their investigations with a preliminary period of participant observation field work. This can clarify the most appropriate time and place to videotape activities of interest. It can also be used to determine where video cameras should be placed and how many should be used. Participant observation used in this way can assist the researcher in becoming more familiar with the setting and with the behaviors to be observed in video recording (Ratcliff, 1999). Following participant observation, the researcher may modify the original research question or revise decisions about the specific behaviors or activities to be videotaped. For example, participant observation of patients in an outpatient clinic may direct a researcher to videotape specific interactions between patients and health care professionals that occur outside the treatment rooms, such as in the reception area.
In addition, participant observation can be used to provide validation of the researcher’s interpretation of the data obtained by video recording. In such a situation, participant observation can be used as a test of the representativeness of the videotaped data; that is, did the video recording capture the participants’ extreme and atypical experience or the everyday experience? Lachapelle (1999) asked ten participants to videotape their responses to artwork in a study of adults’ art viewing. Participant observation could have been used to supplement this data and to provide information about the participants’ everyday experience of art viewing by observing how long and in what order the participants looked at specific art when the video camera was not present.

**Challenges in adding the second observational technique**

Despite the potential advantages of combining participant observation and video recording in a single study, the implications associated with the use of two observational techniques need to be considered. The combination of observational strategies requires a highly-skilled researcher (or ideally a skilled research team), who must not only be knowledgeable about the effective use of video technology but also be skilled in conducting and recording detailed in-person observations. Furthermore, both observational approaches require a similar degree of reflexivity on the part of the researcher to explore the influence of the researcher and research process on observations. Important additional insights into research questions can be obtained by examining differences in the way social interactions are constituted in the presence of an observer, a camera, or both, and how “the various participants and the means of recording their interaction – produce data” (Lomax & Casey, 1998; p. 28). The reactive effects of using two observational techniques, either simultaneously or in sequence, needs to be carefully considered. Although it is possible
that, by establishing relationships and trust through participant observation, participants will be more comfortable in front of a video camera, the opposite is also possible.

There are also important time and cost implications in using two observational techniques that cannot be ignored. Even though some efficiencies may be created in situations where participant observation and videotaping are conducted simultaneously in the same setting in relation to the time spent entering the field and establishing relationships with study participants, similar efficiencies are not characteristic when it comes to the tasks of data management and analysis. Harel (1991) chose to focus in-person participant observation (and interactions) on a few children in the classroom, and set up a video camera on a tripod in the same classroom to simultaneously record classroom discussions, social play, and other activities that would have been impossible to capture along with the focused participant observations. Using this approach, Harel collected over 60 hours of videotaped classroom data to supplement personal hand-written observations and documents reflecting students’ work. These data were analyzed in an “integrated way” to take full advantage of the complementary, yet different, kinds of data available using these two observational approaches. Although Harel’s familiarity with the in-person observations recorded as field notes would have been helpful during the analysis, it was only with detailed review of the videotapes that the researcher saw, for the first time, behaviors and interactions of other children in the classroom that were not the focus of participant observations. Taking the time to become as familiar with the video data as with the field notes was necessary to begin contrasting and comparing observations. Although this process likely involved a substantial time commitment, Harel made some important discoveries that would not have been possible by analyzing either in-person or video observations alone.
The approach to analyzing video-as-text along with field notes will be dependent on the qualitative research method being used. Although each kind of research method requires a particular way of thinking or perspective and its own set of analytical strategies, a key prerequisite for any qualitative analysis is good data management and organization. Clear labeling, cataloging, and safe storage (either on computers or in locked file cabinets) of data facilitates easy access and retrieval in projects of all sizes and becomes particularly important when researchers are managing different kinds of data involving multiple participants. Video transcripts of selected segments of interest can be prepared to facilitate detailed comparison with field note records. By using computer software programs, video clips or video frames can be embedded in the transcripts to preserve relevant visual images and sound files.

There are other data analysis issues that need to be considered when analyzing video text-as-data and extensive hand-written observations in the same qualitative study. Analyzing data that arise from different epistemological understandings produces dilemmas to the researcher who must decide whether to “blend” data for analysis or to treat the data separately during the analysis. When data are blended and treated as equivalent, contradictions that arise from the different data sources are stimuli to conduct further analysis or data collection to try to understand these differences. Although important insights can be obtained when such efforts are made to make sense of the data, there is a risk that the unique contribution of each data set to understanding the phenomena under study may be compromised. An alternative is to disregard the singular voice of blended data, and instead conduct the analysis in ways that preserve the integrity of each type of data. When the analysis is conducted in this way, findings that are seemingly incongruent and contradictory may be produced. Although these contradictions may point to the need for further
analysis or data collection, they may also be a product of the unique characteristics of the data produced by each observational method. This situation would require researchers to report multiple qualitative perspectives on the same phenomena.

**Conclusion**

Advances in both video recording technology and participant observations have led us to consider ways in which these observational methods may be blended to answer research questions. Such innovations in data collection have the potential to extend our understanding of social interactions in important ways. Although we have provided a preliminary discussion about the selection of observational methods in qualitative research and have drawn on available examples, as researchers continue to use observational methods in unique ways, there will be increasing developments in the purposes and use of various forms of blended observations in qualitative research. There needs to be continued dialogue about the issues that we have raised with regard to the simultaneous or sequential use of participant observation and video recording. Researchers are encouraged to share their experiences in blending these observational approaches and the challenges that they encounter.

**References**


Hopkins, C. (2002). ‘But what about the really ill, poorly people?’ An ethnographic study into what it means to nurses on medical admissions units to have people who have harmed themselves as their patients. *Journal of Psychiatric and Mental Health Nursing, 9*(2), 147-54.


