

THE USE OF VIDEO IN ORGANIZATIONAL STUDIES



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In this paper I discuss the use of video in organizational studies, in particular, studies which are characterized by long term observation of a group or organization. These studies are different than many other types of investigation of human behavior in that they occur in uncontrolled circumstances. In the past I've used video for the study of designers at work on specific tasks, including graphic designers and typographers working for periods between an hour and six hours. In each of these cases, all of the activity occurred within the confines of a certain time and in a place where the video was continuously available and in use. In contrast, the work that occurs within an organization happens across a number of people and locations. Interaction happens not only in meeting rooms and at desks, but also in the hallways, at lunch, and in bathrooms, places where video may not always be appropriate or available.

The use of video as a tool for data collection and analysis is tricky in these circumstances because the combination of informal and formal interactions with members of the organization are difficult to anticipate, and hence hard to capture. Furthermore, trust and honesty between the researcher and the informants becomes more difficult to negotiate when cameras are present. Given the density of video data and the length of interaction with the group, the researcher has decisions to make about when to record and to what extent to analyze the footage collected. In addition, there are issues of analysis of footage as time passes and the context changes, leaving the footage as an artifact of a past situation and mindset.

Given that video is valuable for capturing detailed accounts of interaction, the researcher is faced with some complex issues

of introducing such a medium into a group, of choosing where and when to collect data, deciding to what extent the tapes will be available for different purposes and finally, the extent to which they will be analyzed in rigorous ways. This paper is a discussion of these issues in terms of the effect they have on the researcher who is attempting to develop descriptions and theories of group and organizational behavior.

Advantages of Video

The value of video is indisputable. It results in richer account of situations than would be possible from notes or voice recording. The researcher has the opportunity to capture sensitive material in detail for later interpretation and the tapes can be used as a source of evidence for findings and conclusions. Past work with detailed protocol analysis of videotapes of designers has exposed to me the complexity and richness of even simple interactions between people and their environment. When reviewing tapes, I am amazed at the extent to which certain aspects of the interaction are not represented in my memory or notes. Video provides accounts which are more complete than people are able to experience in real time participation. As a result, it has sometimes caused me to doubt the robustness of my memory of interactions. I have also felt that my notes were too subjective to use other than as pointers to areas of further investigation.

While notes and voice recording, as well as artifacts produced by the organization such as sketches, memos and prototypes, are all time tested ways of collecting data, they are subjective and personal. In groups doing things such as design, where

there are many people, prototypes and other sources of reference, it is difficult to reconstruct the character of the interaction from notes or voice recording. Unlike other media, video creates a somewhat objective record of an event, in the sense that different people analyzing the tape will have access to the same visual and verbal information. However, it is not entirely objective in that the researcher is choosing the recording angles and when the camera is on, off or even present. This last point is important because descriptions of the work practices of groups are typically based on long term exposure and evaluation. Since every interaction between group members cannot be realistically recorded, and since video is dense in information about what is recorded, the video segments comprise only a small portion of the information the researcher will use to develop descriptions and theories. Yet video has the potential to uncover aspects of interaction which are missed by other media and are important to making sense of the influences which shape the work activities of the group.

Data Collection

The study of work practices within an organization differs from the experimental study of individuals and groups in some key ways. One of the most important is that people in organizations have their egos and vulnerability intact during the course of the study. Unlike experimental situations, in which the individual or group is taken out of their normal context for a task, the members of an organization are studied in the context that pays their salaries, determines their status and promotions, and provides an important component of their social interaction. With so much at risk, introducing a medium such as video makes many people feel that they are vulnerable to what has been captured on tape. It is tempting, as a way of alleviating these fears, to promise complete confidentiality to the members of the group. However, this approach presents a problem given the nature of the methods with which I work. Participant/observation is the practice of getting actively involved with members of the organization as they go about their business. As such, they expect to have information about what the researcher is doing and learning, just as she collects information about them. Withholding information, especially in the form of access to videos of shared events, presents some problems for the establishment of trust between the groups and the researcher. In the first place, video has actual value to people. For instance, they know that a meeting has been recorded and want to examine it to glean additional ideas or to clarify some aspect of the meeting. If it is not provided, there are questions as to why the researcher would be unwilling to share the data with members of the group. A second difficulty is that as people go about their normal daily activities, they have only a limited sense of accountability for what they say, and often develop their thoughts and views over time. By sharing tapes with a member of the group, there is the potential to harm other members because the tape can be viewed or used out of context. If one or two incidents of this occur, even at a small grain size, trust of both the researcher and the medium diminishes. In the past, I've promised that the tapes of private

interviews would be seen and used only by me. In this situation, the contents can be used as data by transcribing the quotes and removing any blatantly identifying characteristics. However when working with a group over time it becomes easier to identify the group members and their concerns. Another method is to offer to retire from circulation any tape segments which an informant feels would be harmful to her. Finally, to review with the members of the group segments which will be used in some broad forum, and let them decide if they are comfortable with the usage.

There are varying degrees of appropriateness of video for data collection in different situations. Certain types of interaction, such as meetings, lab activity or work at individual desktops are easy to establish as sessions to be regularly recorded. Cameras can be set up in unobtrusive locations and become fixtures in the landscape. However, since cameras are difficult to set up in a hurry, they are less likely to be practical for capturing informal interactions. Furthermore because it is somewhat socially intrusive to carry a camera on the shoulder during casual conversation, it has the capacity to stifle some of the normal behavior which occurs in informal interaction, where much of the politics and social dynamic of a group are defined. For these situations, tape recorders and notes are somewhat more appropriate, but the researcher may have to rely on memory followed by quick notetaking in order to maintain trust and ease of interaction. Another issue of collection is to what extent the activities of the group should be recorded. I think that after the first round of video analysis, the researcher is likely to think that fifteen minutes a day of recording is plenty. But I believe that as much as possible should be recorded, with a concentration on the times when a number of people are present and interacting with one another. In particular, video is important in labs and offices where people are discussing and using the artifacts of their environment. Later in the next section, there is a discussion of a continuum of video analysis methods based on the length and complexity of the video data.

Data Analysis

Video is a dense medium. It captures certain aspects of a situation in great detail. As a result, it is time consuming to index segments of tape or scan them quickly in useful ways. There is no faster way to review two hours of tape than to spend at least two hours reviewing it. For analysis, often a transcription is necessary, which can take from two to ten hours per hour of tape at a minimum. Thus the researcher has to decide how much of her time should be spent analyzing the past when the present is rolling off into the distance. There are a number of approaches to the analysis of video data from very rigorous methods to using the tape to review and clarify notes and memory. Based on the amount of tape to be reviewed, the complexity of the activity captured by those tapes, and the level of description the researcher is trying to create, different methods can be chosen. Each has implications for what the researcher is likely to see in the tapes and the extent to which the analysis is useful for theory

generation. On the rigorous end of the continuum of analysis is a systematic approach in which the tape is transcribed in great detail, capturing the talk and actions of the participants. Categories emerge as the researcher reviews the tapes and becomes familiar with the activity in them. These categories can refer to certain types of actions such as going to the white board or to discussions of a particular issue such as the implications of a new evaluation process for employees. The categories develop as a result of iterative exposure and evaluation of the tapes by the researcher. They can then be tested by looking at other sections of the tapes to determine whether the action fits into an existing category, or suggests a new one.

A twist on this is to invite others to evaluate the tape. Colleagues in the field, as well as people from other disciplines provide a great resource; other viewpoints and fresh eyes with which to view the activity. Inviting members of the organization to view the tapes, especially those who were present for the recording provides different views. I've found that this is particularly valuable because it exposes new areas for investigation of the organization, as people account for actions and decisions based on procedures or interactions that I haven't seen. Reviewing the tapes with other is important for testing what the researcher has seen. However, one should be warned that negotiating the myriad of view points of researchers and participants can slow the analysis to a snails pace.

Confidentiality and trust issues arise again when the researcher considers sharing tapes. It has implications for the collection of data and the establishment of trust within the group studied, as well as the quality of the analysis of the video. Using the video strictly as data and only for the eyes of the researcher can violate her role as a participant in the group by limiting the access of other members of the group to her activities. The possibility of using the tapes as convincing evidence for describing the organization is eliminated unless there is time for transcribing both discussion and activity, and stripping it of identifying characteristics. Similarly, the possibility of making the data available to colleagues is reduced. Since qualitative analysis of human behavior is tricky work and has a highly subjective element, it is dangerous to create situations where the analysis cannot be discussed and evaluated by others with different perspectives.

The methods described above are time consuming even for small segments of tape. Since organizational studies take place over long periods of time, the mass of video tape which can potentially result from such interaction is mind-boggling. In cases of such extreme data, reviewing the tapes informally is still a better option than relying entirely on notes and memory. Furthermore, as the researcher selects some aspects of the

organization that are of particular interest to her research agenda, some types of interaction, and hence events on tape, will naturally rise to the top as more relevant to further and more detailed analysis. In organizational studies, video provides pin points of great detail in a context of an extremely complex world. Taken alone, the views that are captured have the potential to direct the researcher's analysis of the organization. As with any other piece of data, a segment of tape captures interaction that occurs in a larger social and organizational context. When tapes are shared for analysis, individuals will develop different accounts of the activity based on their familiarity with the situation at the hand, the larger community and their role and responsibility to the organization or to the research. The tapes are temporally located as well, because the researcher's understanding evolves and hence she will view the tapes with different information and beliefs as time passes. Furthermore, the larger organization places different demands on the group through time. As a result, evaluation of the events while they are occurring, immediately afterwards and five months down the road will provide for very different accounts of what is happening.

Summary

Video is a valuable tool for the study of the work practice of groups. When it is used in long term evaluation of complex organizations, issues of collection and analysis can be problematic for the researcher. In addition to the social implications of introducing a recording device and developing trust, there are very real problems with managing the mass of data that can result from constant taping. In general, the collection and use of the tapes must be negotiated with the members of the group and the organization within which the study takes place. This is especially crucial where there is confidential data involved. As for analysis, the tapes must be embedded in time and situation using a myriad of other data collection techniques that capture information at many different levels. Furthermore, the researcher must make decisions about the segments that will receive in depth analysis, and those which will be used for more informal review. Finally, video provides a rich and detailed account to researchers trying to make sense of interaction and communities. However, its density and complexity make it impractical as a sole repository of information for large scale studies. As the use of video becomes more common in field studies, the value of notes and artifacts that are generated by the group, as well as informal interviews can serve to contextualize the segments of tape and make higher level analysis more tractable.