FREDRICK ERICKSON: She asked me do I have a presentation. She meant do I have media. And I said no. So I'm going to change the scene a bit. Some of you who know me know that I'm a bit of a technophobe and so what I decided to do was try to talk about some really basic issues of method as I see them and not use particular examples in media. And we've had plenty of wonderful examples so far so I hope that was a good decision. At any rate, the main point I want to make here is that, and it's been foregrounded by everything that's happened up to know, a main problem of method when you use video is that it collects a corpus of records that are information sources and not data, I'll come back to that, and we have tremendous problems of reduction and selection and how to do that in systematic ways isn't easy, but it's by no means impossible, and it isn't all that different from standard, qualitative research methods, systematic research methods is what I would want to argue. And I'm going to try to talk about that by describing two approaches for being systematic about this, either through natural history methods on one hand or very strong theory driven methods on the other. And I'll come back to that. A little bit of history. As far as I know, the first extensive attempt to collect video records of instruction in classrooms happened
in the mid-1970s, two projects that were exactly simultaneous in time starting in 1974. Hugh Meehan in San Diego in the work that resulted in his book Learning Lessons and a bunch of other work on classroom discourse and the so called IRE sequence, his take on that. My own work in the same years, '74 through '76 in a classroom in Newton, Massachusetts, and Bud and I shared the same wireless microphone which was flown back and forth between Boston and San Diego. So the projects were integrated in a certain --

MALE SPEAKER: A boundary --

FREDRICK ERICKSON: -- in what was some kind of boundary exchange. And then a couple years before that, Ray McDermott had started his work on reading lesson interaction. Reading group interaction became his doctoral thesis which was finished in 1976. And the three of us influenced each other a lot. In my project, in the first year we went and videotaped using two cameras, a wide angle fixed camera and a roving camera hooked to a wireless microphone. We visited the classroom, a kindergarten, first grade classroom five times across the course of a year. We filmed the entire school day starting before any child entered the room and running until the last kid left in the afternoon. So that's five hours with two cameras
five times. So that gives you 100 hours of videotape. And then we had 100 hours of videotape. And since then, you know, I've been trying to figure out what to do with that. I had done a study of job interviews and academic advising interviews before that where we had 250 minutes of cinema film, but this was a much bigger problem of data organization and reduction. And I wrote some things about this. There isn't very much written about what to do once you've got all these tapes. All right? But in 1982, I was asked to write a paper called Audio Visual Records as a Primary Data Source which was published Sociological Methods in Research. Alan Brimshaw, the Multiple Analysis Project organizer that was mentioned earlier was the sort of gatekeeper for that. And then because they cut out for that article some -- I talked about the relationship of video to ordinary field work, and that was cut out of the Sociological Methods publication. In the LeCompte, Milroy and Prysol handbook ten years later of Qualitative Research in Education, there's a longer version of this called Ethnographic Microanalysis of Interaction. And we also in 1982 with NIE support, then NIE, produced a booklet through Michigan State's Institute for Research on Teaching called Sights and Sounds of Life in the Schools, a Resource Guide to Film and Videotape for Research in Education. And then
25 years later is in press a paper in the new book on Complimentary Methods for Research in Education that ADRA has sponsored, and I was asked to write the chapter on video analysis for that volume edited by Judith Greene and others. That's in press. It will be out in a few months. So I've been living with these issues for quite a while. But they aren't that much different from those faced more generally by qualitative researchers it seems to me in dealing with a corpus of information materials. I mean when you shoot video, you collect a corpus of records. They're information sources by my way of thinking. They're not data until you do something with them. Right? You relate information bits on them that you confine to some research questions. So there are massive problems of data finding, selection, where to go to look, and then ultimately some kind of data reduction maybe. Although in the case of the surgery example, reduction wasn't the issue. Microanalysis was the issue.

Now, here's the point. It seems to me that fundamentally, if this is going to be done in a persuadable way, one needs a strong rationale for the selection of instances that one subjects to close investigation. That's the basic issue. How do you get a strong rationale? And how can you make that transparent? How can you show how
you get from 100 hours of videotape to these pieces on these tapes for these reasons and then looking at these aspects of behavior rather than some others? And people still aren't all that good at doing that which is why we're here. But there I think have been some really great attempts at this, and they're fairly successful, but they're not generally known. Seems to me there's two different ways to provide a strong rationale for selection and microanalysis. One is through natural history methods where the theory is unknown as well as the brute facts that are potentially on the weight of the data. You don't know what the facts are. You don't have a particular theory in mind. And the great danger in a natural history approach is that of cherry picking. All right? Only looking for positive instances. Right? And the very fact that cherry picking is a metaphor in current usage suggests that this is not a unique problem for this kind of research. Right? It's a problem for all kinds of social research and inquiry that isn't research either. Like what's wrong with Iraq and what are we going to do about it? And I take from this morning's Washington Post a headline from the President's speech yesterday in which he announced a plan for victory. The headline says Under Plan Progress Will Dictate When Troops Return. And then there's a little schematic here of
benchmarks for progress. Okay. Well, and he told us
yesterday all kinds of instances, particular instances of
progress in Iraq. On the facing page, on the other side
just to show you this isn’t rocket science, here’s a
headline. In Bagdad, Reality Counters Rhetoric, and
there’s a bunch of instances of people being blown up and
kidnapped and what not. Okay. That wasn’t on his list.
Right? So he’s cherry -- if God had videotaped Iraq, you
know, he would have been selecting one set of instances and
the Iraqis are talking about a different one. And then
that isn’t like too hard to recognize in the world. Robin
Wright writes her commentary saying President’s strategy
for victory does not address problems. It says he’s cherry
picking instances. Okay? So a natural history approach
depends upon comprehensiveness. And there’s
comprehensiveness of two kinds in the video world I think.
The two (inaudible) to think of, one is in the shooting as
we’ve seen already, and Rogers actually gave us a really
nice example of that. And we can assume that from the
other people that was also being done. It’s important to
shoot material in such ways Rogers showed us that you don’t
inadvertently by panning, you know, eliminating the
listening reactions of a listener in a crucial moment when
a speaker is doing something if listening and speaking
mutual influence is crucial to understanding the teaching and learning that's going on. And so, indeed, the phenomenon that most of the people that NSF has been funding lately are interested in learning and interaction in some way or other. And that's why people are videotaping. Interaction Gaufman told us is an encounter or a situation that he called an ecological huddle in one famous paper. The huddle involves simultaneous mutual influence and attention among all participants, artifacts, the build -- environment, everybody that's there, and we saw a number of stills that showed those kinds of huddles. If you want to document that sort of thing comprehensively, you need to turn the camera on before you think the event is starting, leave it on until after you think it's over, don't move it much or zoom as Rogers showed us. Or if you zoom, you need to really know why you're zooming the way Tim did showed us. And we also saw this in Brigid's stills, shoot wider than you think you need to cause you never know when something's going to change in this ecological huddle. That's a time-space mutual ecological of social influence happening before your eyes. And then try for good sound as was mentioned. That's how to get a comprehensive sort of record in your corpus of records. But then you need comprehensiveness in reviewing the
contents of the record. And the principle there is to do it exhaustively. And this is just like what historians do. You take all the letters of Jefferson to Merriweather Lewis. You don't just take half of them. Or if you're doing a postmortem dissection, you don't leave out the heart, you know. You look at all the major organs. Darwin stepping off the boat onto the shore of the Galapagos Islands looked at all the finches. He didn't know what was going to turn up later, but he looked at all the finches he could find. And then in various grain sizes you're doing typical case analysis, whether it's of exchange of speaking turns or a listener relationship or where the scalpel and a finger go or whatever, you're looking for that. And you look for repetitions, and you look across surgery occasions, and you look across lessons, and you look at how a teacher introduces a new idea at the beginning of Lesson A. And if you've got ten other beginnings of lessons like that, you look at all the other nine, not necessarily in the same detail. Now, just very quickly. I know I'm out of time. The other approach is I'm calling the theory driven approach where cherry picking is what's done, and we need to remember that sometimes that's very appropriate because good cherry pickers know what they're doing. They know, you know, which are the good cherries. Right? They
don't pick all the cherries on the tree. They pick the good ones. But you've got to have really strong understanding of the phenomena of interest as probably Tim did later in his work, as Brigid did. But an extreme example of this comes from the video footage that we saw at the Allerton Conference done by Rich Laer and Leona Shobble, and a paper on this is published in the Fall 2004 issue of the American Educational Research Journal. The article is called Modeling Natural Variation Through Distribution and what they were interested in was how kids display variation in graphs that they make up to account for data of plants that are growing fast, fast plant growth. And they were divided. This was a whole unit on this. They were divided into teams, and they construct graphs in the teams and show them to each other. And Laer and Shobble really know what the point of this whole thing is so they are able to decide we're going to focus on the showing of the graphs at these crucial last lessons in the unit and we'll quote what the kids say about their own graph, and that is cherry picking. It's very, very selective, but you know why they picked the instances that they pick. And the instances that they pick perfectly illustrate the issue that they're dealing with. Brenda's work also, some of it works a bit like this. So that's the
point. Comprehensiveness is an ideal. It's especially important when you're working as a natural historian and cherry picking is bad. Cherry picking is good if you are in a very strong position theoretically to know what and why what you select to pay close attention to is and can make a clear case to the audience. Thank you.

(Applause)

AUDIENCE MEMBER: One question. Fred, I didn't understand why the last example qualifies as cherry picking. It would seem to me that anything you do off the (inaudible). And I may not understand the examples, but if you're saying I want to look at every child talking about their final product then that's not really cherry picking. But (inaudible) sampling (inaudible) to an algorithm that is hopefully (inaudible) to tie it up.

FREDRICK ERICKSON: Just very quickly, what they did I think was they picked their best example of an illustrative -- a point about learning.

AUDIENCE MEMBER: Yeah. Yeah.