The Video Analyst's Manifesto
(or The Implications of Garfinkel's Policies for the Development of a Program of Video Analytic Research within the Learning Sciences)

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Abstract: Written in the form of a manifesto, this paper is designed as a declaration of principles defining a new program of "video research" within the learning sciences. Our proclaimed approach to scientific research draws predominantly upon the literature and methodology of Conversation Analysis (CA). Conversation Analysis developed out of and shares the thematic interests of the broader field of inquiry known as Ethnomethodology (EM). EM is centrally concerned with practical reasoning and the procedures (i.e., "methods") participants (i.e., "members") employ in making sense of their own actions and the actions of others. CA focuses specifically on the methods members employ in competently producing conversation. We propose to focus analogous research methods on how members engage in instruction and learning. A rigorous methodology has been developed for conducting CA studies and an elaborate and carefully-integrated research literature has been amassed over the years. In some of the foundational writing on EM, Garfinkel proposed a set of policies for EM research. Since we suggest that video analytic research in the learning sciences be conducted using CA methodology and given CA's thematic link to EM studies, we believe that Garfinkel's policies might serve as useful organizing principles for research on learning practices.

Keywords: video analysis, ethnomethodology, Conversation Analysis

The Role of the Video Analyst in Educational Research

The work of educational research is to identify ways of improving instructional practice through the design and introduction of instructional innovations. This work is traditionally carried out by two kinds of specialists—curricular designers and program evaluators. *Curricular designers*, including learning theorists, technology developers, and content experts (e.g., mathematicians, natural scientists, etc.), who are responsible for producing what might count as an innovation in instruction. *Program evaluators* are then charged with assessing the effectiveness of the innovation. Instructional innovations, however, do not exist as abstractions. They are brought to life through the moment-to-moment interactions of classroom participants (i.e., teachers, students, curriculum designers) as they go about their daily activities. Documenting how innovations are produced as practical, interactional achievements is the work of the *video analyst*.

Research on educational innovation requires a diversity of research skills and approaches. A typical attempt at significant reform involves the design of technical artifacts, activity structures, institutional practices, instructional scaffolds and curricula that interact with each other. Not only is a multidisciplinary team needed in the curricular design role, but the program evaluation role also needs a diversity of methods. This need has been partially addressed by discussions of design-based research (Brown, 1992; Design-Based Research Collective, 2003).

However, it is not just a matter of measuring complex outcomes. It is necessary to look at the actual practices of instruction and learning that take place under evolving conditions. Innovations do not directly produce outcomes, but are mediated by the activities and interactions that instantiate the innovations in the classroom. This essentially transforms and interprets the intended innovations of the curricular designers (Remillard & Bryans, forthcoming). Special techniques and methodologies are needed to analyze these mediational processes. Digital video provides an enabling technology and we propose a specific approach to conducting video analysis.

As video analysts, we are concerned with what might be termed *the practices of learning*. Instruction is one aspect of these practices, but if we say video analysts study instructional practices, this might be misconstrued to mean that we are only interested in the activities of teachers. All who are engaged in the conduct of education (i.e., students, teachers, administrators, evaluators, curriculum developers, etc.) are inevitably engaged in learning (though what and how they learn may be different in each case), and so the province of study for video analysts in the learning sciences is quite broad.

Studies of the details of the practices of learning are only rarely included as part of the work of designing and evaluating instructional innovations. Such forms of analysis, however, could enable designers and evaluators of instructional innovations to become more articulate about the nature of the innovation itself. Video analysis offers a means for overcoming the 'theory-into-practice' problem by documenting how a pedagogical theory is actually constituted through concrete, interactional practices. Video analysis can be fruitfully performed at different stages of a project. First, an analysis of practice *prior to* development of an innovation can inform design work by revealing aspects of existing practice that are difficult or problematic. Second, an analysis of practice *during* the introduction of the innovation can help us understand the process (and problems of) changing practice. Finally, analyzing practice *after* introduction of the innovation serves to document the essential features of the innovation.

This paper is offered as a manifesto or declaration of principles for how a program of video research within the learning sciences might be undertaken. Our approach draws most directly upon the literature and methodology of Conversation Analysis (CA). Conversation Analysis (Psathas, 1995; Sacks, 1992) developed out of and shares the thematic interests of the broader field of inquiry known as Ethnomethodology (EM) (Garfinkel, 1967, 2002; Heritage, 1984; Psathas, 1995; ten Have, 1999). EM is centrally concerned with practical reasoning and the procedures (i.e., "methods") participants (i.e., "members") employ in making sense of their own actions and the actions of others. A variety of different methodologies have been developed for doing EM research. CA focuses specifically on the methods members employ in competently producing conversation. Research in CA employs a particular methodology for transcription and analysis. A well-elaborated research literature employing this methodology has been amassed over the years.[1] In a foundational work, Garfinkel (1967; 2002) advanced a set of policies for EM research. Since we propose that CA methodology be appropriated for video analytic research in the learning sciences, and given CA's thematic link to EM studies, we believe that Garfinkel's policies serve as useful organizing principles for research on learning practices. An ethnomethodologically-informed approach to the study of learning practices, however, requires thinking about learning in new ways. Before addressing Garfinkel's policies, therefore, we will first address re-thinking learning as a socio-logical phenomenon.

Re-thinking Learning as a Socio-logical Phenomenon

Educational research in the United States is built upon the disciplinary foundations of educational psychology (Lagemann, 2000). Although educational psychology is dedicated as a discipline to the study of how educational practices might lead to improvements in learning, it has no tools for directly studying learning practices themselves. Its stock in trade is in the development of instruments for indirectly measuring learning construed as an internal, "occult" mental event that is not directly observable by researchers. In this way, educational research devotes extensive resources to evaluating innovations in practice without having means of inquiring into the nature of the innovations as a form of practical accomplishment. Since instruction is an inherently social activity, it might make sense to turn to the social sciences for a means of studying the practices of learning. Mainstream sociology, however, suffers from a problem similar to that of educational psychology in that it attempts to identify structural elements (e.g., race, income, etc.) that effect social order without ever studying the actual practices through which social order is produced and recognized (Garfinkel, 1967, 2002). It, like educational psychology, therefore, fails to offer appropriate tools for studying learning practice.

Ethnomethodology, on the other hand, does provide a framework for studying learning practice as member's methods of sense production. EM emerged historically from sociology and serves as a critical response to

the "structural functionalist" (Heritage, 1984) tradition in sociology. To apply an ethnomethodological lens to learning practices, however, we need to re-think what we mean by 'learning,' understanding it not in its conventional and psychologically-infused sense, but rather treating it as a form of practical, socio-logical reasoning.

Instruction and learning are such slippery ideas. They are used in so many ways to describe so many different kinds of activities. This, of course, can be a source of considerable confusion if people have different ideas about what instruction and learning are and what they are not. Ethnomethodologists speak of *instruction* in a way that differs from the term's usual sense as something that teachers do for or to students. EM is centrally concerned with the ways in which members design their actions to be *instructably observable* as something or other. Garfinkel (1996) wrote:

> Ethnomethodology's fundamental phenomenon and its standing technical preoccupation in its studies is to find, collect, specify, and make *instructably observable* the local endogenous production and natural accountability of immortal familiar society's most ordinary organizational things in the world, and to provide for them both and simultaneously as objects and procedurally, as alternative methodologies. (p. 6).

People do things in ways that are designed to display the sense of what they are doing to others or, stated in another way, to be instructably observable. Instructability or being instructably observable is an integral property of all social interaction and is not necessarily limited to schools or classrooms.

People conventionally talk of learning as an experienced, but not observable, mental event. Instruction is construed as a procedure for fostering this experience in others. When someone does learning, however, they do so in a way such that their actions are recognizable as such. This, unlike the hypothesized mental event, is a public and observable activity, an accountable social achievement. To avoid confusing learning in its usual sense as an occult mental event with learning as an instructably observable way of *doing* learning, we will use the hyphenated form instruction-and-learning for the latter phenomenon. Our task here is to show how Garfinkel's policies might inform the study of instruction-and-learning – that is, the empirical practice rather than the theorized hypothetical.

Garfinkel's Policies for Ethnomethodological Inquiry

Garfinkel (1967) provided five policies as a starting point for ethnomethodological studies. Garfinkel's policies are densely worded and, though presented as five independent items, are complexly interconnected and overlap considerably in their scope. In attempting to summarize them here, therefore, we have extracted a key theme from each policy statement and have attempted to explain the significance of the themes to video analytic research. In particular, we have translated Garfinkel's terminology (indifference, inspectability, relevance, accountability and indexicality) into the manifesto proclamation that data for video analysis is everywhere, visible, grounded, meaningful and situated.

Policy 1: Data Is Everywhere

> An indefinitely large domain of appropriate settings can be located if one uses a search policy that *any occasion whatsoever* be examined for the feature that "choice" among alternatives of sense, of facticity, of objectivity, of cause, of explanation, of communality *of practical actions* is a project of members' actions. Such a policy provides that inquiries of every imaginable kind, from divination to theoretical physics, claim our interest as socially organized artful practices. (Garfinkel, 1967, p. 32)

EM is concerned with the practices people engage in to make sense of each other's activities. Since human interaction always constructs meaningful order, the EM researcher can analyze almost any interaction and discover interesting processes of meaning construction and order negotiation. Sacks (1992), for instance, argues that for people to be able to understand each other within a complex culture, social practices must be relatively standardized and ubiquitous, and that this has methodological implications for the researcher:

> Then it really wouldn't matter very much what it is you look at – if you look at it carefully enough. And you may well find that you got an enormous generalizability because things are so

> arranged the you could get them; given that for a member encountering a very limited environment, he has to be able to do that, and things are so arranged as to permit him to. (p. 485)

This addresses the problem of case studies. A traditional sociological approach seeks out special events to analyze or imposes laboratory controls on large numbers of cases and computes sophisticated averages. But the phenomena of everyday practice that are of interest to EM and fall below the radar of other social science and of conscious folk theories can be studies in depth in arbitrary individual instantiations. Such studies are not "merely anecdotal" – as the slogan goes – because anecdotal evidence is data based on or consisting of reports or observations of unscientific observers, whereas EM analyses adhere to rigorous, detailed, intersubjective and inspectable procedures.

Because any site is as likely as another to reveal the artful practices of rational action, the EM analyst has great latitude in selecting settings in which to do analysis. In particular, any circumstance, situation or activity which participants treat as one in which instruction-and-learning is occurring can be investigated for how instruction and learning are being produced by and among participants.

As discussed in policy 3, below, the criteria by which site selection is to be done has to do with how the participants took what they were doing. The work of the analyst is to conduct an empirical investigation into what participants are doing through their interaction – it is not to impose a theoretical category from outside the interaction. If researchers begin their investigation by seeking out a site that represents 'best practice' or 'exemplary instruction' or 'an example of innovation *x*,' they will have begun their investigation by presuming what their investigation is ostensibly designed to investigate. As analysts, we do not presume that we are more informed about learning-and-instruction than the practitioners who do learning-and-instruction. It is not for us to bring to the table preconceived notions or theories of learning and instruction and then see if they are operational within a scene. Instead, the video analysis we propose consists of descriptions of the actions that practitioners perform. These descriptions are specifically oriented to display the sequential organization and orderliness that informs these actions and that these actions are designed to produce. The analyst does not select data as 'cases of x,' but determines what the data is about based on what the data shows the participants to be attending to; as Schegloff (Prevignano & Thibault, 2003) describes the methodology of CA or EM,

> The most important consideration, theoretically speaking, is (and ought to be) that whatever seems to animate, to preoccupy, to shape the interaction *for the participants in the interaction* mandates how we do our work, and what work we have to do. (p. 25)

The policy of setting aside or bracketing out externally-supplied characterizations of what participants are doing in conducting an analysis, is sometimes described as ethnomethodology's studied indifference to members' matters, that is, refusing to impose one's own interests.

Policy 2: Data Is Visible

> It is not satisfactory to describe how actual investigative procedures, as constituent features of members' ordinary and organized affairs, are accomplished by members as recognizably rational actions in *actual occasions* of organizational circumstances by saying that members invoke some rule with which to define the coherent or consistent or planful, i.e., rational, character of their actual activities. Nor is it satisfactory to propose that the rational properties of members' inquiries are produced by members' compliance to rules of inquiry. (Garfinkel, 1967, p. 32-33).

The idea that social practices are a matter of following culturally defined rules is incoherent, as Wittgenstein had already argued (Wittgenstein, 1953): Tacit practices and group negotiations are necessary at some level to put rules into practice, if only because the idea of rules for implementing rules involves an impossible recourse. Although there is certainly order in social interactions that people are not explicitly aware of but that can be uncovered through micro-analysis, this order is an interactive accomplishment of the people participating in the interactions. While the order has aspects of rationality and meaning, it is not the result of simply invoking or complying with a determinate rule. Consider, for instance, the orderliness of traffic flows at stop signs. The smooth functioning in accordance with traffic laws is continuously negotiated with glances, false starts and various signals. Although we do not usually explicitly focus on how this is accomplished unless we take on an analyst's perspective

(because explicit awareness is not usually necessary for achieving the practical ends), the signs that are exchanged are necessarily visible to the participants and accordingly accessible to a researcher with appropriate means of data capture.

Participants, "as members to an organized arrangement" (Garfinkel, 1967, p. 32), are continuously engaged in the work of making sense or meaning of their own and others' actions. The imputed sense or meaning of an action or of a sequence of actions is not determinate, however, but is instead endlessly open to new interpretation. As Heritage (1984) explained, "The task of fellow-actors … is necessarily one of *inferring* from a fragment of the other's conduct and its context what the other's project is, or is likely to be" (p. 60). In other words, it is the way that actions unfold that gives them the sense they have. Furthermore, actors are selective in what they treat as relevant so that many aspects of an action's sense remain indeterminate. The only requirement that actors themselves place on their sense-making is that it be adequate for the purposes at hand. Meaning, therefore, is "a contingent accomplishment of socially organized practices" (p. 33).

Members' talk and action has a reflexive character, which is to say that it is simultaneously "context-shaped" and "context-shaping" (Heritage, 1984). The meaning of any action depends crucially upon the context within which it is performed. At the same time, the action itself re-shapes the context in ways that will inform the understandability of other actions that follow. Heritage (1984) referred to this as being "doubly contextual" (p. 242). To study instruction-and-learning as a form of practice, therefore, we need to examine how particular actions provide for their own understandability *as* instruction-and-learning. Said another, way, we need to study observed actions as resources by which actors can produce the sense of prior actions in light of the current action, and make relevant and sensible possible subsequent actions.

An investigation must rely on the actual practices of the participants as they are engaged in the work of instruction-and-learning to provide an adequate description of this work. Such an analysis would constitute a description of the determinate sense of the situation that members construct through their actions. In order to document members' practices in detail, repeated inspectability of these practices is necessary. Video technology provides for the repeated inspectability of instruction-and-learning. This inspectability serves as the only legitimate basis for making claims about instruction-and-learning. In other words, analytical claims about instruction-and-learning practices must be supported by defeasibly observable actions of participants, which are evident in the recorded interaction and which establish the facticity and relevance of the claimed matter for the participants themselves. This leads to the recommendation of the remaining three specific research policies.

Policy 3: Data Is Grounded

> A leading policy is to refuse serious consideration to the prevailing proposal that efficiency, efficacy, effectiveness, intelligibility, consistency, planfulness, typicality, uniformity, reproducibility of activities—i.e., that rational properties of practical activities—be assessed, recognized, categorized, described by using a rule or a standard obtained outside actual settings within which such properties are recognized, used, produced, and talked about by settings' members. (Garfinkel, 1967, p. 33)

It does not suffice to offer descriptions that depend upon categories defined outside of the situation under study (e.g., student, teacher, gender, learning-disabled, low-achieving, socio-economic status, language ability, etc.) as accounts for what participants do or don't do. Garfinkel's third policy dictates that our theories about learning practices must not only be substantiated in the observational data, but should arise from and be grounded in that data. Specifically, we must "bracket out" our pre-existing theories and understandings while constructing our analyses and re-introduce them only when we can empirically demonstrate their "relevance" as evidenced by the talk and activities of the participants. As Schegloff (1991) observed,

> There is still the problem of showing from the details of the talk or other conduct in the materials that we are analyzing that those aspects of the scene are what the parties are oriented to. For that is to show how the parties are embodying for one another the relevancies of the interaction and are thereby producing the social structure. (p. 51)

Further, this policy specifies that actors are not "judgmental dopes" who are incapable of monitoring and acting upon their circumstances. They are capable of making choices and they have a shared, if provisional and defeasible, sense of propriety with respect to what they both can and cannot do and what they should and should not do. While this sense of propriety may or may not be something actors can account for, it is evident in what they do and the way they do it. The work of instruction-and-learning, therefore, as it is actually done is an ongoing sequence of contingent practices commonly shared among and recognizable by participants. Whether or not a situation is an instance of learning-and-instruction or of successful innovation is not a matter for curricular designers or program evaluators to judge a priori, but for video analysts to demonstrate in their empirical analysis of how the participants took their own activities. This does not mean that it is a matter for the participants to address in post hoc surveys, interviews or focus groups either. For retrospective rationalizations are not the same as the sense making that is enacted in situ. It is up to the video analysis to ground judgments in the traces of the interactive judgments of the participants.

Policy 4: Actions are Accountable

> The policy is recommended that any social setting be viewed as self-organizing with respect to the intelligible character of its own appearances as either representations of or as evidences-of-a-social-order. Any setting organizes its activities to make its properties as an organized environment of practical activities detectable, countable, recordable, reportable, tell-a-story-aboutable, analyzable—in short, *accountable*. (Garfinkel, 1967, p. 33)

Actors organize their activities in ways that provide for their intelligibility as reportable and inspectable. To be a bit more specific, we assume that people do things in ways that are inherently designed to make sense. This is a powerful assumption because it allows us to say that actions and the sense associated with them are sequential in nature and that this sequential organization produces, sustains and is informed by members' shared sense of the local social order. This allows members to recognize prospectively and retrospectively that they are engaged in the work of instruction-and-learning as they engage in that work.

When Garfinkel refers to behavior as being accountable, the word can be understood in two senses. First, members can (and are) responsible for their actions and are accountable to their interlocutors for utterances and actions which may appear to be without reason or rational. Second, and more obliquely, Garfinkel is contending that all behavior is designed in ways to give an account of the action as an instance of something or the other. It is the work of the video analyst to document how this is accomplished.

Policy 5: Data Is Situated

> The demonstrably rational properties of indexical expressions and indexical actions is an ongoing achievement of the organized activities of everyday life. (Garfinkel, 1967, p. 34).

Indexical expressions are those whose sense depends crucially upon knowledge of the context within which the expressions were produced. The most obvious examples are expressions that contain deictic terms such as here, there, I, you, we, now, then, etc. To make sense of an utterance containing such terms, it will generally be necessary to know who is the speaker, who is the audience, where the speaker and audience are located, when the utterance was produced, etc. Any sentence containing such elements will have different interpretations or meanings depending on the circumstances in which it is produced. Because of this, deictics are sometimes referred to as "shifters" by linguists. Logicians and linguists "have encountered indexical expressions as troublesome sources of resistance to the formal analysis of language and of reasoning practices" (Heritage, 1984, p. 142).

One of Garfinkel's contributions was to note that deictic terms are not the only ones that have indexical properties. Heritage (1984) provides the example of the assessment "That's a nice one" offered while the speaker and the listener are attending to a particular photograph. What qualifies the picture as nice (e.g., its composition, color rendering, content, etc.) is not made evident by the utterance and must somehow be worked out by the listener by inspecting the object in question. In this way, non-deictic terms such as *nice* are indexical in use.

Not only expressions, but also socially-organized actions can have indexical properties. Imagine two people standing face-to-face and one reaching out and gently pushing the other. The meaning of this act, however,

as a warning, provocation, greeting, understanding touch, etc. depends crucially on context, on the nature of the interaction that immediately preceded this act.

The fact that the meaning of indexical expressions and actions cannot be determined isolated from the circumstances within which they were produced does not usually present a problem for participants. For starters, participants inhabit the situations within which the expressions and actions are produced and, as a result, are naturally supplied with many resources for resolving their meaning for present purposes. Further, participants have the opportunity to dispel any residual ambiguity through additional sense negotiation. Ultimately, however, all indexical expressions and actions are always contingent and to some degree indeterminate in ways that are deemed acceptable to actors themselves. For Garfinkel, the question of how this indeterminacy is managed in the nonce on a routine basis was at the heart of all ethnomethodological inquiry. It would appear to be of similar importance to video-analytic work.

The Contributions of Ethnomethodologically-Informed Research to the Work of Reforming Learning Practice

> These days, only such work as is grounded in tape (video tape where the parties are visually accessible to one another) or other repeatably (and intersubjectively) examinable media can be subjected to serious comparative and competitive analysis. (Prevignano & Thibault, 2003, p. 27f, interview of Schegloff in 1996)

What we are proposing here is a novel approach to studying learning practice within the context of curricular reform work. It is based on a small number of preliminary studies that have been conducted of learning-and-instruction using digital video and applying a particular analytic methodology adapted from EM and CA. The approach is one that we are currently exploring and evolving (Koschmann, Glenn, & Conlee, 2000; Koschmann & LeBaron, 2003; Stahl, 2002). We are not the first to propose conducting EM studies in classrooms, nor is the notion of applying CA methodology to study instructional innovations necessarily new. The novelty of our proposal has to do with the idea of using CA methods directly in support of educational reform efforts.

In proposing a program of ethnomethodologically-informed research in the learning sciences it is important to bear in mind that EM (and CA) is a strictly descriptive undertaking and that there are problems when one attempts to apply EM studies to design and evaluation work which are inherently prescriptive matters. We believe these problems can be overcome, however, through an appropriate division of labor among curricular designers, program evaluators, and video analysts. Video analysis, conducted under the auspices of Garfinkel's policies, cannot pass judgment on what might serve as good or bad or even representative practice (see Policy 1). It can, however, document what members do in carrying out educational activities and, in so doing, produce the *data* by which curricular designers and evaluators can do their respective tasks. This proposal, for a team-based approach to performing research directed toward educational improvement, is, in our minds, the main contribution of this paper.

As a discipline focusing on members' methods for practical reasoning, EM provides a useful foundation for research into the practices of learning. Garfinkel's policies for EM studies, therefore, provide a reasonable starting point for constructing a program of video analytic research in the learning sciences. Much work remains, however, to bring such a program to life.

Endnotes

(1) We do not provide a description of this methodology here but instead refer the interested to reader to any of the several available introductory guides, (e.g., Psathas, 1995; ten Have, 1999).

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