### ED 179 545

# SP 015 273

AUTHOR TITLE ) INSTITUTION SPONS AGENCY	Florio, Susan: Walsh, Martha The Teacher as Colleague in Classroom Research. Occasional Paper No. 4. Michigan State Univ., East Lansing. Inst. for Research on Teaching. National Inst. of Education (DHEW), Washington,
PUB DATE CONTRACT NOTE	D.C. Feb 78: 400-76-0073 36p.
DESCRIPTORS	MF01/PC02 Plus Postage. Classroom Observation Techniques; *Educational Researchers: Grade 1: *Interaction Frocess Analysis; Kindergarter: *Participant Involvement: *Perspective Taking: Student Behavior: Student Teacher Relationship: *Teacher Attitudes; Teacher Behavior: *Teamwork

### ABSTRACT

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Oceasional Paper No. 4

THE TEACHER AS COLLEAGUE

. IN CLASSROOM RESEARCH

Susan Florio and Martha Walsh

#### Published By

The Institute for Research on Teaching 252 Erickson Hall Michigan State University East Lansing, Michigan 48824

February 1978 '

This work is sponsored in part by the Institute for Research on Teaching, College of Education, Michfgan State University. The Institute for Research on Teaching is funded primarily by the Program for Teaching and Instruction of the National Institute of Education, United States Department of Health, Education, and Welfare. The opinions expressed in this publication do not necessarily reflect, the position, policy, or endorsement of the National Institute of Education. (Contract No. 400-76-0073)

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Florio and Walsh describe the development of their relationship as researcher and teacher. As their colleagueship developed, they provided each other with new insights and ways of looking at the classroom and teaching.

Abstract

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The Teacher as Colleague in Classroom Research<sup>1,2</sup>

Susan Florio and Martha Walsh

Classrooms are social places. During the school day, teachers and children engage in talk and movement that is subject to interpretation from moment to moment -- at play, during lessons, while cleaning up, at lunch. A considerable part of the teacher's work involves decision making about the social and academic growth and readiness of children based on such interpretations of talk and movement. Typically, however, people do not need to plan in advance of to put into words their interpretive procedures, nor do they necessarily share them, particularly with others from different cultural and linguistic traditions. This state of affairs can complicate teacher decision making in culturally diverse classrooms.

It is one of ethnography's aims to describe the interpretive procedures operant among members of particular social groups by means

<sup>1</sup>Paper originally presented as part of a symposium on Studies of the Social Organization of the Classroom at the annual meeting of the American Educational Research Association, San Francisco, 1976. It will appear in Trueba, H., Guthrie, G., & Au, K. (Eds.). <u>Culture and the</u> Bilingual Classroom. (in press)

<sup>2</sup> The research reported here was supported in part by a Spencer Foundation grant awarded to Frederick Mrickson. The authors also wish to acknowledge the cooperation of the Institute for Research on Teaching at Michigan State University and the Newton Public Schools, Newton, Massachusetts. The authors accept sole responsibility for the ideas expressed in this paper.

Susan Florio is coordinator of IRT's Writing Study. Martha Walsh is a kindergarten/first-grade teacher with Newton Public Schools, Newton, Massachusetts and a member of the IRT Advisory Board.

of observation of and participation in the ways of life of those groups. In this process, group members can become informants to the extent that they are called upon to step outside the ebb and flow of life, and comment upon it. When a classroom is the social setting and a teacher is the informant, such commentary to an interested researcher allows the teacher to reflect upon practices of daily classroom life usually taken for granted.

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This paper traces the evolving relationship of a teacher and a researcher who shared life in a kindergarten/first-grade classroom for an academic year. Their relationship became the basis for new ways of thinking about the social and academic competencies of children in the classroom, and for new ways of thinking about the aims and conduct of classroom research.

## Setting the Scene

The colleagueship between teacher and researcher evolved during a pilot study of classroom interaction. In the 1974-75 academic year, researchers at the Harvard Graduate School of Education initiated a study whose history reflects several years of thinking about -- and trying out -- methods for producing ethnographically valid accounts of classroom communication. In many ways, therefore, it is a history of trial and error -- and of insights that could not be anticipated.

The researchers sought an experienced primary school teacher to join them in a study of the socialization of young children to the ways of behaving and making sense in the classroom. They hoped that the teacher would be willing to have graduate students videotape periodically in her classroom and to watch and discuss the tapes with the research team during the school year. A kindergarten/first-grade teacher, Martha Walsh, was

recommended by her principal not only because she had taught successfully at his suburban Boston Title I school for seven years, but because she was particularly open about the operation of her classroom and had a reputation of willingness to try new things. Ms. Walsh typically taught a kindergarten/first-grade class, and the majority of her students came from blue collar, Italian-American families.

From the utset, the study was intended to depart from traditional studies of teaching. The data analyzed were videotaped samples of naturally occurring classroom activities. The samples were taken at the beginning, middle, and end of the school year. The study was an ethography in that analysis of videotaped talk and movement was used to learn about the social organization of Ms. Walsh's classroom and the processes by which kindergartners became accustomed to it. As such, it resembled other, more traditional ethnographies. Theory about face-toface interaction guided the formation of initial research questions and data collection, but extensive viewing of the tapes was required to discover what the functionally relevant ways of behaving might be for those involved in the scene. As a result of this early work, subsequent major modifications were made in research questions and data collection

procedures.

In the first year of the study in Ms. Walsh's classroom, careful recording of retrievable slices of classroom life for detailed analysis was done. However, this recording only scratched the surface in obtaining a sense of the shared understandings of the teacher and class members guiding their interactions. The study did not provide for long-term, systematic observation of and participation in classroom activity by a field worker. Although it was possible to construct models of the organization of activities in the classroom on the basis of videotape analysis and conversations with the teacher, the researcher's lacked a sense of the school and neighborhood as they impinge on life in the classroom and, most significantly, they had little direct experience of the everyday life in the classroom they had so faithfully recorded on tape. Thus, to gain closer access to the general patterns of life to which kindergartners become accustomed upon joining Ms. Walsh's class, participant observation was an obvious addition to the study.

In the fall of the second year of the study, Susan Florio joined Ms. Walsh's class as a field worker. Ms. Florio was an advanced doctoral student who, prior to entering graduate school, had been a middle school teacher of language arts. With the added perspective that fieldwork made possible, the research team acquired an enriched ethnographic framework in which to view and analyze the videotapes. Also, because of the colleagueship that developed between teacher and researcher during this phase of the study, it was possible to give serious consideration to ways in which classroom interaction research can articulate with and be used in the service of the daily needs, and goals of teachers and

Beginning the Fieldwork

children.

Both teacher and researcher held several unanalyzed and preconceived assumptions about the nature and purposes of classroom research at the outset of the pilot study. The teacher, for example, did not initially see the research project as a learning experience. She volunteered to participate feeling that she would not be changed in the least by the experience) However, among her unstated assumptions were that teachers often do things wrong and that outsiders -- researchers -- come in to fix or criticize them; and

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that educational research is carried out typically where and when a setting is in need of altering. She was confused about the actual purpose of the study. Her initial questions were, "How did they find me?" and "What can I do for them that someone else couldn't do better?" Her decision regarding the study was that she would do what she had done for the past seven years in her classroom, and that "they" were welcome to observe. If they learned from her or liked what they saw, great! But she was not going to worry about any negative implications of her involvement.

• The field researcher entered the classroom setting with assumptions about educational research as well. These arose out of her introduction to the study of teaching. Although attempting classroom participant observation, she assumed, for example, the following:

Educational research is typically conducted in the context of "proof." That is, outsiders observe phenomena in order to evaluate needs, prescribe treatments, and then to measure the effectiveness of those treatments.

2. It is possible to observe a setting as complex as a classroom easily, systematically, and "objectively;" and thereby to arrive at a description and understanding of the setting.

3. The needs and questions of a classroom researcher probably do not overlap or articulate with those of a classroom teacher.

### Changes of Perspective

In the study's first year, classroom videotaping without participant observation left little time for communication between the teacher and the research team. Data collection took on the aspect of traditional classroom observational research. The researchers gathered data -eyes glued to cameras or éars tuned to headphones. They would tape, take notes, pack up, and leave. Though not put off by them, the teacher did not feel particularly included in or informed about what

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# they were looking for.

The sessions held at the university in which she was invited to view and discuss tapes made in her classroom gave the teacher and researchers their first chance to get involved with each other. It was through these sessions and small group discussions that Ms. Walsh's perspective began to change; she began to see herself as a member of the Naturally the process took time. At first, although told to team. watch and comment freely, she was not clear about what was expected The sessions were very open-ended, but she still saw herself of her. as an object of investigation, unable to generate any of the questions and capable of providing only "right" and "wrong" answers to the researchers. Although the tapes began to be valuable to her at this time as a tool for awakening her thinking about her classroom and students, she was unsure of what others wanted to get from them or in what light she should comment while viewing.

A great deal of the teacher's discomfort was occasioned by the researcher's own vague ideas of how to proceed at this point. Unlike many scientists, they had not generated explicit hypotheses about Ms. Walsh's classroom a priori. Instead, they generated guiding questions or "working hypotheses" as they went (Geer, 1969). They attempted to base these hypotheses on what they were seeing in the classroom tapes. From an ethnographic perspective, they seriously intended their openended questions. Yet asking questions such as "What's happening here?" and "What do you see in the tapes?" communicated an uncomfortable message to Ms. Walsh. After all, they were supposed to be the "experts.

Gradually, the teacher and researchers developed a sense of trust, • a personal rapport, and -- not surprisingly -- a more clearly defined set of research questions. They came to know one another as individuals

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in the classroom, at the viewing sessions in university offices, and at informal dinners. And, in the process, they came to know a great deal more about classroom interaction research as well.

# Research in the Context? of Discovery -- The Joint Enterprise . of the "Participant Observer" and the "Observant Participant" ).

In the study's second year, the participant observer entered the classroom with the rather vague and naive idea that by means of various research strategies, she could learn something about what went on in the classroom, share her insights with the teacher, and thereby leave her with something that would make a difference in her day-to-day classroom problems. As it turned out, this process was to/be but a by-product of the fieldwork research, a way of repaying Ms. Walsh for her participation. It was not the heart of the participant observer's study.

Based on her initial experiences as both participant and observer in the classroom, the fieldworker was forced both to reconsider the complexity of the classroom phenomena she had hoped to document and perhaps influence, and to make explicit and question critically her assumptions about how and why one engages in classroom research. Despite a background in the literature of classroom interaction and experience as a nonparticipant classroom observer, the researcher found herself "just teaching" as she spent more and more time with the children in this class. Her awareness of socielinguistic issues did not automatically change anything that she could see or feel in her own behavior as she engaged in daily activities with the children. She was not very different in this role than she had been as a teacher in her own classroom beveral years before.

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What was different, however, was the kind of disciplined reflection she for d herself to engage in after each school day. As a field researcher, she was Anclined to think through the day's events in light of what she was reading and thinking about the functions of language and nonverbal behavior in social confexts (e.g., Cazden, John, Hymes, 1972; Gumperz, 1971; Hymes, 1974). The researcher also had the advantage of videotapes of typical daily activities. Thus she was able to step out of the thick of events and take a second (and often a third) look at the kinds of events that transpired in the room and the roles that people played in them.

Gradually, the researcher realized that if her experience as a participant observer was different at all from what it had been as a teacher in her own classroom, it was because she was becoming more, sensitive to the dynamics of everyday classroom life. She also had more time and tools available for reflection about classroom events --the formation and disbanding of groups, the eruption of arguments, the management of interruptions, the demonstration of the mastery of academic skills. The following anecdote reported in her early field notes illustrates the experience.

I was playing Candyland, a board game, with a group of students. It was the fourth day of school and the first where I was not preoccupied with videotaping. During the taping of the first three days of school and in conversation with the research team that had been there for the taping, and now -- most noticably -- during the game, I was unable to refrain from forming strong impressions of most of the children. One of the boys in the group (Harry) seemed to me to be manipulative. At cleanup time, he did not join in, and I attempted to get him phelp in the effort. Uncertain of my authority in a room where I was not the teacher, and therefore hesitant to issue an imperative, 'I deliberately said instead, "Harry, will you help is put away the game now?" He replied simply, "No." At that point the teacher, having overheard the exchange, said, "Alright, Harry, go over and help them clean up." ΙZ·

This incident can be thought about in a number of whye, It may be that, in fact, Harry, being new both to me and to the kindergaften, misunderstood the discourse function of my utterance and responded to it as a yes/no question rather than a command. However, it is also possible (and something in my teacher's intuition says more likely) that he fully understood what I had meant but was quite able to take advantage of my uncertain position of authority (expressed especially in my linguistic choice) and was almost successful in opting out of the cleanup job.

In any case, thinking about the event and about, the intuitions that I already have about Harry and where they may have come from, it occurs to me that my theoretical perspective and field methods may not be able to alter the way people act in social encounters, but they may at least put some extra steparbetween those social encounters and the ways we think and feel about students. If teaching is largely a matter of forming and testing hypotheses about children, then it seems like a good idea to have as much data available as possible -- to have many ways of thinking about and accounting for what we observe, experience, and do with children. (Field Notes, 9/9/75)

The researcher began to speculate that the change of perspective she was experiencing might also happen to the teacher if she were invited to become more intimately engaged in the research process. The early insight was critical for the researcher in defining, with the teacher, both what the nature of their relationship and the goals of the research might be.

As the researcher spent more time in the classroom, the teacher felt more comfortable and better informed. The teacher felt that she was beginning to have a definite hand in the research. She realized that, although teachers do not have time to be ethnographers in their own classrooms, they can become more observant participants. Together they generated new insights and questions which Ms. Walsh checked out by observation during and reflection after teaching. These activities enabled her to become a part of the process, not just a source of data.

The researcher put great effort into incorporating the teacher into the research plan. Constant contact with the research process helped the teacher to see herself as an important member of the research team. During the second year of the project, she also received a salary. This was a tangible demonstration of her membership and provided additional motivation for her to take an active role. Also during the project's second year, her views were actively sought. Classroom participation by the researcher allowed more time for conversations than the viewing sessions had. While in contact with the children during the school day, the distinction between teacher and researcher was often blurred. Observations and questions could be shared on the spot or during release time and lunch. However, there still remained days when, busy with tasks specific to their separate roles, all that teacher and researcher could manage were a "Hello" and a "Good-bye."

### The Blending of Roles

One of the first areas of joint discovery for teacher and researcher as they began to experience the blending of their respective roles concerned the idea of educational "change." The issue of whether the research intended to change anything in the classroom was a problem for both: Since so many strangers enter classrooms to engage in some sort of intervention, the researcher's role of participant observer implied that change might be one goal of the project. However, ideas about the complexity of behavior and about what might be meant by "change" grew and were refined in the teacher/researcher dialogue almost from the outset. In fact, thoughts about change became more modest during the course of the study than they had been at the beginning. The teacher was not seen as gomeone in need of

"treatment," and the researcher, who became in time less an outsider; was not seen as a conventional agent of change. Like any teacher, Ms. Walsh had particular classroom problems; and like any researcher, Ms. Florio had a personal agenda of research questions. However, it was interesting to discover just how much these two problem domains overlapped. Since each hoped to be helped with her individual concerns by sharing the diverse perspectives and kinds of expertise brought to the experience, each was in some sense "changed" by the other during the course of the research experience. An example of how the teacher's thinking was affected by her involvement with the research effort is demonstrated in the following anecdote taken

from'field notes,

There are specific problems which might be addressed with videotapes and analysis. One of these is the question of Jerry and the issue of whether he is suffering or benefitting from his remedial, bilingual tutorial help.

The issue of interruption and speculation about the pros and cons of taking children out of the classroom for extra help has been discussed before by the teacher and the researcher. Some children clearly benefit from the help, and it seems worthwhile to sacrifice their classroom time and place them in a new social setting with yet another adult/evaluator in the interest of mastery of some fundamental skill. However, for other students, like Jerry, the added social complications of special help may, in fact, interfere with the mastery of those skills.

In Jerry's case, the tutorial help doesn't seem to be working. The tutor manifests a different'style than the teacher. It appears that the tutor encourages Jerry's dependence on her. He can't function when he returns to the regular class.

The teacher has raised the problem in conversation with the researcher. They have noted that the ethnic identity of Jerry and the Italian teacher, combined with the tutor's lack of experience in classrooms, and finally combined with her obvious temperamental differences from the regular classroom teacher may make learning with the tutor a very different kind of experience than learning with the regular classroom teacher." The teacher has suggested than an examination of the ways in which tutor and classroom teacher behave differently might be useful in both understanding and creatively solving the problem. She has suggested that each professional observe and/or view videotapes of the other in an attempt to discover how their own behaviors differ and how Jerry works differently with them. (Field Notes, 2/4/76)

The task for the researcher, on the other hand, was to become more and more a part of the scene. She was continually asking, observing, and being with the children. Yet, it was important for her to be both "stranger and friend" (Powdermaker, 1966), preserving a kind of double vision that enabled her to account in some larger arena for how and why things made sense to the classroom members in the ways they did.

For the teacher, the task was curiously reversed. She was continually immersed in the fray, and, like many other teachers, experienced loneliness and frustration in that immersion. She learned gradually to look at her classroom problems not only in the company of her researcher colleague, but to reflect on those problems using more of the perspective and techniques her colleague demonstrated. She reflected on what she thought, did, and absolutely. *knew* about her class. She was an insider gaining some internal distance from her role. She was thus able, at certain moments, to see the familiar in a fresh,

Procedure for Research

new way.

Concretely, this curious blend of roles engendered a procedure for classroom research in which both the acher and researcher worked closely in posing researchable questions, formulating hypotheses, and gathering and analyzing data. They agreed early on that classroom

research ought to address the daily concerns of teacher and children and not merely be descriptive or prescriptive. They were interested not only in addressing questions about classroom interaction, but in examining, as a phenomenon in its own right, the process of change of perspective and consciousness that both experienced.

The research procedure had four components: particpant observation, selective videotaping of classroom activity, joint viewing sessions, and some microanalysis of taped segments.

Research questions were generated in an ongoing manner. They came from many sources: the problems of individual children, the effects of room organization, the disruptions that occurred and their possible causes and others. Once a question of mutual interest was selected, the teacher and researcher went back through videotapes and field notes previously collected and made new tapes and observations. The team tried to find instances of the particular problem raised and then began to generate hypotheses that might answer the question.

Finally, by viewing and microanalysis of segments as well as focused classroom observation, they attempted to locate in actual behavior the sources of the issues raised and thereby test their informed hunches. They discovered that working this way served both to provide a, rich ethnographic context for microanalysis and to diffuse the anxiety usually associated with self-analysis by means of videotape.

<sup>4</sup>Microanalysis is defined for the purposes of this paper as the careful viewing of selected behaviors -- "verbal and/or nonverbal --"As they occur across time in an activity. In this paper a sample of microanalysis of social interaction is presented. It is in part by means of microanalysis that teacher and researcher alike can gain insight into the behavioral sources and correlates of the thoughts and feelings that they have about the social situations in which they are participants or observors.

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/ In making the collaborative process a subject for study as well, the team carefully documented meetings, trying to keep track of insights, unique approaches and analyses, and the ways perspectives were modified as a result of dialogue and joint inquiry.

As a final component, the team attempted to think about and monitor instances of behavioral change -- spontaneous and/or deliberate -- that occurred in the classroom as a result of the joint study.

# A Case Study

This case study is intended as an filustration of the research In it, the teacher and the researcher arrived at the method. problem for study in several ways. The teacher had mentioned one day over coffee that she was curious about why one first-grade student . (Arthur) was able to "get to her" in a way that another student (Louise) was not. The researcher recorded this comment in her field notes. About a month later, they were again engaged in casual conversation about the classroom when the teacher repeated her question about Arthur and Louise. She was surprised to learn that the researcher had previously noted it as one of her concerns. They decided to pursue the question since it had emerged as salient for both of them -- Arthur and Louise being children frequently discussed by the teacher and appearing often in the researcher's field notes,

The research process began with a directed conversation about the two children. The teacher and researcher discussed similarities and differences between Louise and Arthur. The children were both first-graders who tended to talk a great deal, yet they seemed to be treated very differently by their peers. Arthur was a leader and Louise was an object of teasing and exclusion. They also had differential success in gaining the floor as they attempted to talk in large class

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meetings called "circles" (see Figure 1).

With these observations in mind, the teacher and researcher went back through videotapes collected during the very first weeks of school. They chose to look at circles because they were dontexts in which both of the children appeared and in which teacher and peers were also visible. The following regularities were noted in viewing these tapes:

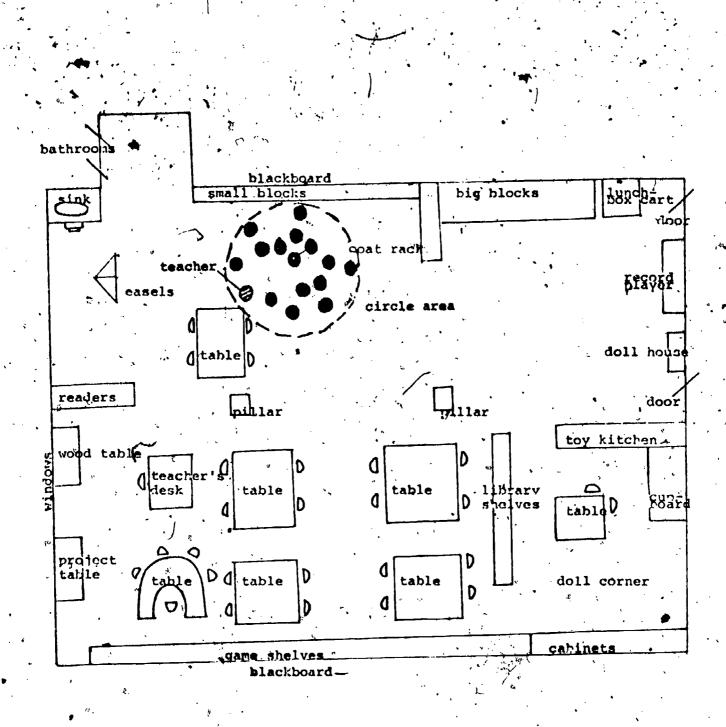
1. Louise and Arthur tended to dominate the circle . times. They talked and moved a great deal and were, noticed often by the teacher.

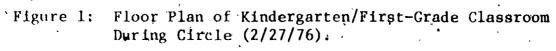
2. Louise and Arthur seemed to be doing the same things in their attempts to gain the floor, but Arthur clearly had a great deal more success than Louise.

3. The similar behaviors of Arthur and Louise included sitting on the outer edge of the group, raising hands, shifting from sitting to kneeling positions, moving toward and away from the teacher, and verbalizing a great deal.

The research team then selectively taped the entire class during another typical circle to determine whether these regulatities were still occurring some six months into the school year. Team memberswatched the tape without gound, hoping thus to pay primary attention to the large-scale movements of Louise and Arthur and not to be distracted for the moment by speech. Even without microanalysis, certain behaviors again emerged as common to both of the children, including kneeling/ sitting, raising/waving of hands, and leaning forward or away from the teacher. These behaviors were chosen for microanalysis simply because they were so obvious to the viewers from the tape. They seemed to be the major ways in which these children were expending energy in trying to get a turn to talk (Pike, 1971).

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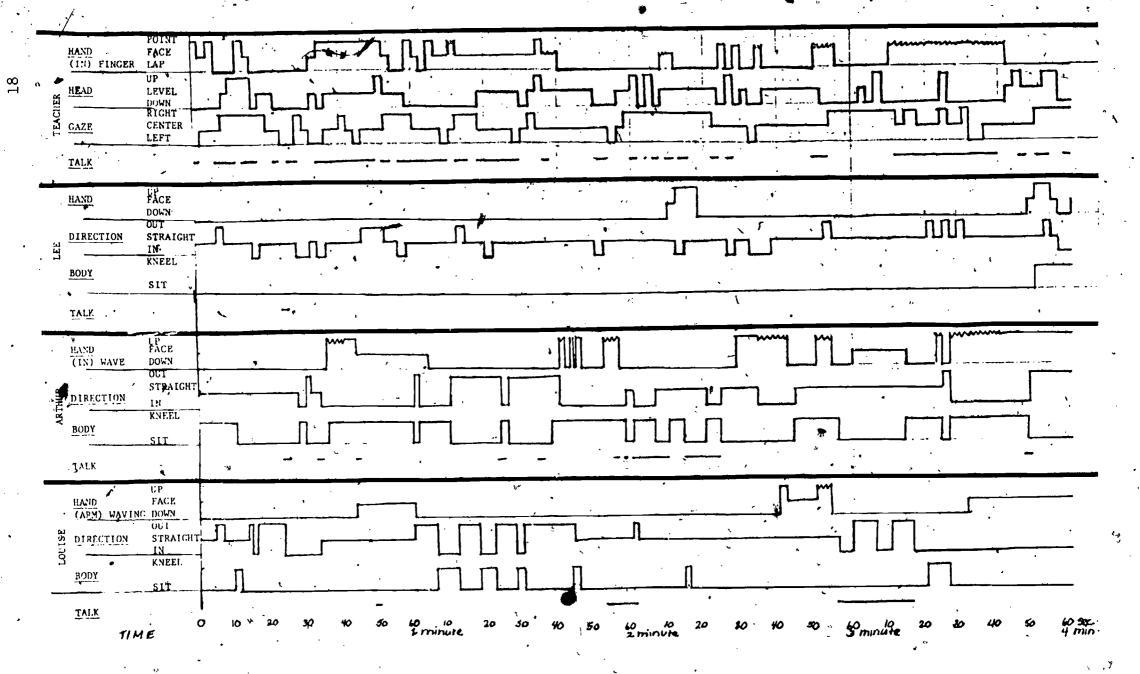
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For the purposes of microanalysis the team carefully watched a four-minute segment as the beginning of the circle, noting variation in the behaviors mentioned. They looked for beginnings, endings, and changes of intensity. A fourth category -- presence or absence of talk -- was added to the analysis, but the content of that talk was excluded for the purpose of this analysis. 17

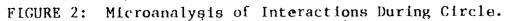
Upon charting variations in these behaviors, the team discovered that, indeed, there were similarities between the behaviors of Lousie and Arthur. However, there were some important differences in what might be called the efficiency with which the two children manifested those behaviors (see Figure 2). It appeared that when Arthur wanted to talk, he employed all four of the noted behaviors almost precisely at once. He presented a unified front to the teacher, making it clear that he intended, to get the floor. This picture of his behavior seemed to be consistent with the teacher's characterization of him as a leader among the children and as an active participant in the circle. Louise, on the other hand, seemed enigmatic to Ms. Walsh. She was of large physical size, and the teacher described feeling that Louise "crept up on her" during circles. When looking at the graphic representation of Louise, it was clear that she often moved up and down and in and out simultaneously. Since no hand movement or verbalization generally accompanied such movement, it was difficult to tell if Louise was attempting to gain the floor or not. What did emerge, however, was a snake-like pattern of movement in which Louise seemed to be, indeed, "creeping up" on the teacher.

Arthur talked, in quick bursts and moved more often during the four minutes analyzed. Louise, on the other hand, held the floor only once. She talked for a very long time and was eventually cut off by the teacher.

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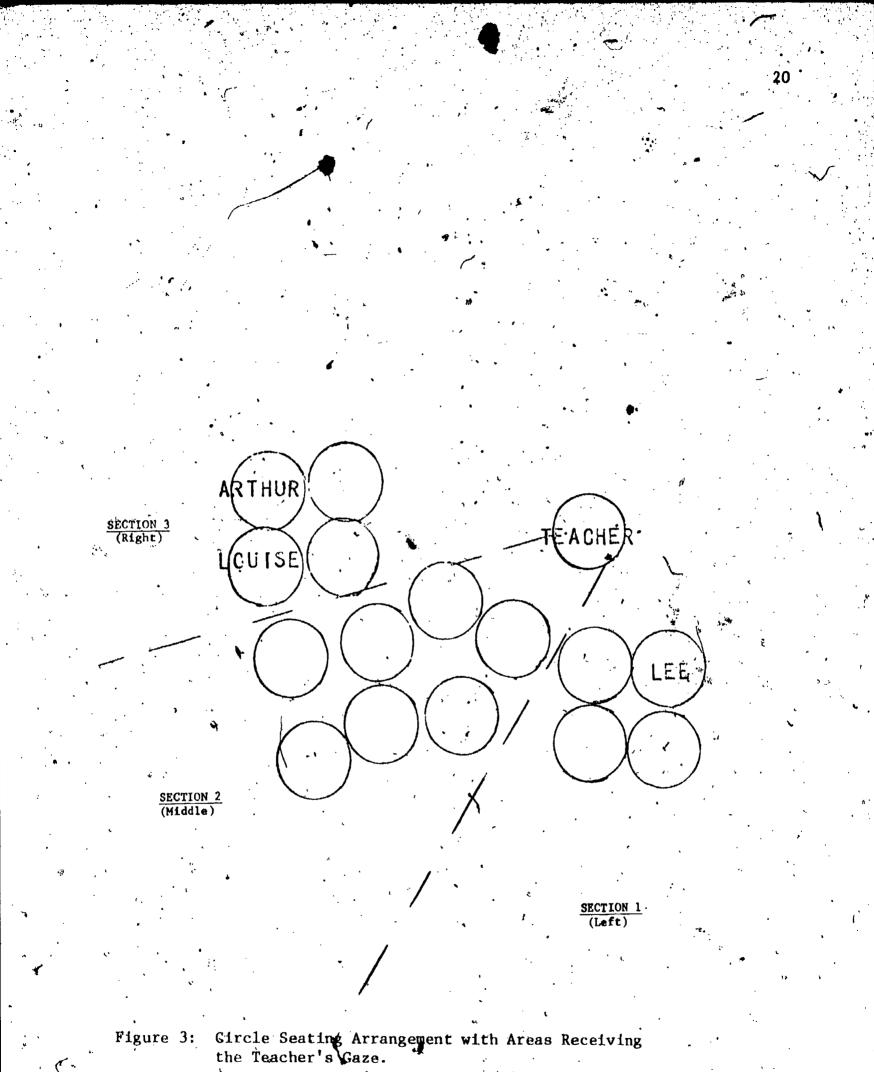
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She did not move & great deal while talking.

The teacher's behavior during those first four minutes was also analyzed. Again, salient movements were charted -- head and hand movements, gaze direction, and the presence or absence of talk. The class group seemed to divide naturally into thirds -- left, center, and right -- in receiving her gaze. However, the teacher looked at the center section almost half of the time and at the right hand section (containing Louise and Arthur) nearly all of the rest of the time (see Figure 3).

For the purposes of contrast, the team decided to take a microanalytical look at one of the students from the third of the group receiving the least of the teacher's gaze. Lee, the student on which the team focused, showed few of the behaviors of Arthur and Louise. He was chosen in part because he shared some traits with the other two students: he was of large physical size, a first-grader, and a student who often sat on the outer rim of the circle. However, he differed from both of them in' that he was very quiet and did not move quickly. In spite of Lee's quietness, the teacher never seemed to doubt that he was paying attention. She referred to him as "academic" and felt no need to check up on him by calling on him. In charting his behaviors, the team realized that most of the behaviors selected for Arthur and Louise simply did not apply for Lee. He never spoke alone or raised his hand, but he did move his head and move in and out slightly. It is interesting to note, that he moved most while the teacher was talking, perhaps behaviorally demonstrating to her that, although virtually silent, he was a person who listened and paid attention during circles.



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The implication of this brief and cursory look at how some simple microanalytic techniques were applied in addressing a teacher's assessment of, or difficulties with, particular children is that there really seem to be easily spotted behavioral correlates to the ways a teacher feels about children. Perhaps these kinds of data are important ingredients in a teacher's assessments of children or in his/her decisions about how and why activities are organized. Furthermore, if teachers wish to intervene in their own settings, they have the means to document the ways in which that intervention might change actual behavior ---something more concrete and perhaps less threatening than feelings, and something that is critical to the genesis of those feelings.

The early analytic work on this segment suggested further research. The teacher and researcher hoped to look in more detail, for instance, at the function of gaze direction. They hoped to consider amount of talk; the syntactic and semantic features of that talk (including topical relevance); paralinguistic features such as pitch, loudnesse and rate of speech; and other nonverbal behaviors that appeared to co-vary with them. Finally, the team hoped to return to the original question, linking the analysis of behavior that took place at a low level of inference back to the feelings and problems that had initially prompted the question. In this way, the team hoped to discover how the ways in which children used speech and movement helped to create particular impressions of themselves and locate them in their respective places in the larger social order of the classroom.

Rationale for Colleagueship Between Teacher and Researcher There are ethical, epistemological, and pragmatic reasons why it is worthwhile and important to adopt such a collegial ethnographic method of research in classrooms. This method treats the teacher and

children not as objects of study, but as active subjects of great interest and importance. The teacher's opinions are valued, and s/he is seen as a vital member of the research team. In fact, teacher cooperation and insight are essential to the process of inquiry. The entire research operation becomes more congenial, and the findings are more beneficial to all involved.

This system essentially delegates the agent of change role not to an outside consultant, but to the people who, in many ways, possess the most direct and explicit power and responsibility to do things in the setting. In this study, the ethnographer did not merely acquire data in the setting and depart, nor did she generate, in isolation, theories or treatments to apply to manipulate the experience of class members. She was an integral part of the scene, both gathering information of use and interest in the development of a unifile theory of classroom interaction, and facilitating, by means of her expertise in certain research methods, ways for the teacher to gain a new kind of perspective on her role and her students.

There is a need for inservice work and continuing education courses which will help teachers share experiences and solutions and raise individual self-esteem and awareness. For example, the staff development literature in recent years has been replete with arguments for revolutionary forms of inservice training that would give teachers the major role in determining the nature and direction of their professional development. In this light, this method of field work could be modified to benefit most public school systems on a larger scale. The method proposed would use two resources frequently not fully exploited in schools -- the videotape equipment which almost every school system has and often uses only minimally, and the teaching teams and friendship groups that exist among classroom teachers in any given building: Faculties have tended to become more stabilized in the past few years. Pre-established familiarity, trust, and a working relationship among small groups exist on many faculties. The members have a head start in that they already know and share much charographic data that an outsider would have to work quite hard to assimilate. Many schools have curricula, grade levels, and classroom settings based on an established team approach. Rather than having a full-time ethnographer. follow an individual teacher, the emphasis here would be on helping the members of a team of teachers to become inside change agents, cooperating with their peers in professional development. Teachers working as participant observers in their peers' classrooms could constitute a source of energy and impetus for idea exchange and dialogue unusual in many schools.

This method of field work also confronts the problem of the lone-. Jiness experienced by self-contained classroom teachers (Sarason, 1971). Teachers have friends among their colleagues but rarely get to share individual professional techniques, problems, or experiences with one another. They are assigned, or perhaps confined, to their respective rooms, students, and areas of expertise. They often feel isolated, defeated, and overwhelmed by their own problems, which they tend to internalize or ignore due to their isolation. They often do not admit to difficulties or share their innovations and successes, feeling, "Who really cares?" or "It's me -- with or against these 25 children."

In research in the context of discovery rather than proof, the social scientist is the instrument putting her/himself through changes in order to learn about the phenomena of interest. S/he.does not

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manipulate the environment but focuses rather on isofating, describing, or discovering the dynamics of that environment -- what is predictable about it, how it functions, and what kinds of breakdowns can and do By making the teacher a co-researcher it is possible for the occur. same thing to happen to him or her. It is in this way that a teacher's behavior can be said to be changeable -- by having a new experience in a familiar setting. If teachers were to share in the process of classroom inquiry in the absence of a trained ethnographer, it is not difficult to imagine that they could become eyes and ears for each other on a containuing basis, using their knowledge and the techniques of field research. They would work together as peers, avoiding the awkward tendency for researchers from the outside to take or have attributed to them more power or authority than the teachers with whom they work. teachers working together could become sources of idea exchange and dalogue for one another in creatively thinking about classroom problems.

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### References

- Cazden, C., John, V., & Hymes, D. (Eds.). <u>Functions of language in</u> the classroom. New York: Teachers College Press, 1972.
- Geer, B. First days in the field: A chronitle of research in progress. In G.J. McCall & J.L. Simmons. (Eds.), <u>Issues in participant</u> observation. Massachusetts: Addison-Wesley, 1969.
- Gumperz, J. Language in social groups. California; Stanford University Press, 1971.
- Hymes, D. <u>Foundations in sociolinguistics: An ethnographic approach</u>. Pennsylvania: University of Pennsylvania Press, 1974.
- Pike, K. Language in relation to a unified theory of the structure of human behavior. The Hague: Mouton, 1971.
- Powdermaker, H. <u>Stranger and friend:</u> The way of an anthropologist. New York: W.W. Norton, 1966.

Sarason, S. <u>The culture of the school and the problem of change</u>. Boston: Allyn and Bacon, 1971.

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