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ABSTRACT

This study investigated the ability of middle school teachers to use descriptive feedback from their students in changing their teaching behavior. One homeroom group of twenty-five students was observed in interaction with nine teachers of math, English, social studies, and science over a one-year period to elicit both quantifiable and qualitative data. Classroom observation techniques included sequential records of student-teacher interaction, running accounts of student behavior, and a questionnaire describing student attitudes toward school and self. Pupils were surveyed in September, mid-January, and late May. In mid-January, teachers were given descriptive information based upon the observation data, including information about pupil attention rates, the quantity of teacher-initiated interaction, student-initiated interaction, disciplinary comments, praise, criticism, and extended interaction. General teacher reaction to this type of nonevaluative, descriptive feedback was extremely receptive, though each teacher's reaction and behavior change during the second semester was different, as illustrated in separate vignettes of each. Teachers expressed a desire for more frequent feedback and seemed eager to establish a dialogue with the observer-researcher. The observation-feedback method used was viewed as generally useful for improving the ability of teachers to improve classroom life. (MB)

Descriptive Feedback: Increasing Teacher Awareness, Adapting Research Techniques

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In their review of teacher-student relationship studies, Jere Brophy and Thomas Good conclude that teacher awareness is the key to getting teachers to shape the pattern of interactions in their classrooms proactively rather than merely reacting to differential student behavior.[1] They suggest that much inappropriate teaching appears to result from lack of awareness on the teachers' part. Since teachers typically get very little feedback on their teaching, we do not know much about the potential of increasing teachers' awareness of their own behaviors toward individual students in their classrooms.

This study was designed to improve our understanding of how middle school teachers might utilize descriptive information about their students' interactive experiences in four different subjects. We were interested in the impact of the lowest level of intervention: increasing awareness by providing descriptive rather than interpretive or prescriptive information. Allowing teachers to process the data in any way they desired, we wanted to describe how experienced teachers might deal with this additional information as they coped with second semester. Hopefully, this more naturalistic approach would yield a greater understanding of the constraints upon classroom intervention as well as preserve the professional autonomy of teachers.

In this paper, we will describe the reactions of the teachers as they coped with the demands of second semester and suggest some implications for classroom research.

Methodology:

Assessing the impact of teacher awareness through descriptive feedback was part of a year-long observational study designed to explore the developing evaluative environment of classrooms.[2]

In light of our general aim of describing the evaluative environment of classrooms, we decided to study seventh grade because it is a crucial time of developmental and institutional change in which self-appraisal and peer comparisons are supposedly important. We chose a heterogeneously grouped homeroom of twenty-five students in a urban school located in an interracial, middle class neighborhood. Obviously, we are viewing only one variant of the phenomena, but the intensive nature of the study precluded a larger sampling.

Classroom experience for seventh graders involved several teachers and a regrouping of students every fifty minutes. While such organizational arrangements increased the complexity of the study, it gave us the opportunity to see the same students respond to a variety of classroom environments created by different teachrs and different peer groups. In looking at the feedback information, it gave us the opportunity to see how different teachers reacted to the same children.

The homeroom group of twenty-five students we observed stayed together for math class. Their schedules for English, social studies, and science varied greatly. Following twenty-five students in the homeroom to their four major subjects involved weekly visits by the observer to fifteen classes taught by nine teachers. Over the year, three hundred class periods of observation were coded using a variety of observational schedules. Each child was observed for twenty class periods in each of the four major subjects during the year.

A variety of observational schedules were used in order to record as systematically as possible student behavior, student-teacher interaction and student-student interaction. While the emphasis was on quantifiable, comparable data, there was also a desire to capture a qualitative sense as well. In view of our desire to describe the evaluative environment of classrooms, the observational schedules were designed to allow us to reconstruct behavior sequentially and

use the individual, as well as the group, as the unit of analysis.

A variety of observational schedules were used for the class visits. For half the classes, the observer recorded a sequential record of teacher-pupil interaction using an adapted version of Brophy and Good's General Class Activities Coding Sheet.[3] The other half of the time, attention of students was recorded using the Jackson Teacher Pupil Communication Schedule[4] interspersed with two-minute modified running acccounts of individual student behavior which was designed primarily to gather information on peer interaction. The latter schedule also incorporated comparison behavior as described by Pepitone.[5]

To describe attitudes about self and school as well as behavior, a questionnaire was developed. Following Rosenberg,[6] items were designed to explore students' interpretations, standards, values, situational and interpersonal choices. Students were also asked to state their reaction to different subjects and rate each teacher in terms of twenty-six evaluative statements. The ten-page questionnaire included Coopersmith's Self-Esteem Index,[7] Brookover's Self-Concept of Ability Scale-General and Brookover's Importance of Achieving Higher Than Others Scale.[8] It was administered during the first week of school in September, in mid-January before teachers were given feedback information, and at the end of the school year in late May.

After being observed from September through mid-January, teachers were given descriptive information based on the observational data to increase their awareness of the interactive experiences of individual students in their classes relative to their classmates and relative to their experiences in other classes. The written feedback information included information about the students' attention rates, and the quantity of teacher-initiated interaction, student-initiated interaction, disciplinary comments, praise, criticism and extended interaction. Data was presented in relative categories (e.g. high, average, low, negligible), indicating where the student stood relative to his/her classmates. Differing

positions in the three other subjects were noted for the teacher. Second semester, after the feedback conferences, the same observational schedules were used to explore changes in interactive patterns.

The following chart summarizes the timetable for the study:

First week of school	Questionnaire administered.
September-Janurary	Observation schedules employed
End of January	Questionnaire administered
Early February	Feedback sessions with teachers
February- May	Observation schedules employed
End of May	Questionnaire administered
June	Background information reviewed from school files

Combining data from the questionnaire and the observational schedules, we were able to look at changes in teacher treatment, student attitudes and student behaviors as they developed second semester. Some of the changes might be the result of the natural development of teacher-student interaction, some the result of specific data given the teachers, and some the result of knowing which children were being observed. While changes cannot be attributed to the feedback itself, the combination of variables exist in all school settings where intervention might be considered.

Results:

Coping with second semester is a complex process. Besides responding to the natural development of evolving relationships, many teachers reassess their own performance mid-year, attempting to continue, modify or change when appropriate. To these naturally developing events, we added another element, increased awareness of individual students' behavior.

Having seen the individualistic nature of each child's experience first semester,[9] it was clearly necessary to analyze our data by looking at the classroom experience of individual students. Elsewhere, we present one hundred case studies looking at quantitative and qualitative changes in the experiences of individual students.[10] Since the purpose of this paper is to focus on coping strategies of teachers, we present this chart which summarizes the direction of change in student attitude and behavior.

STUDENT	ATTITUDE				BEHAVIOR			
	Eng.	Soc.St.	Sci.	Math	Eng.	Soc.St.	Sci.	Math
Susan	-	-	+	-	+/-	+	+/-	+/-
Gene	same	same	same	-	+	-	-	-
Harold	+	+	+/-	+	+	+/-	-	+
Jessica	same	-	-	same	+/-	same	+/-	+/-
Diana	+	+/-	-	-	+/-	-	+/-	-
Christopher	-	same	-	+	+/-	+/-	+	+/-
Jimmy	-	+	-	-	+/-	-	-	+/-
Laura	+	same	-	+	+	same	-	same
Marlene	-	+	-	-	+/-	+/-	-	+/-
Paul	-	same	-	-	+/-	+	+/-	-
Steve	+	-	-	+	+	+	-	+
Woody	same	+	-	+	+	+	+/-	+/-
Larry	+	-	+	+	+	+/-	+/-	-
Wendy	+	+	-	-	+/-	+/-	+/-	-
David	-	+	-	+/-	+	+/-	+/-	+/-
Loren	-	+	same	+	-	+/-	+	+
Nathaniel	same	-	-	same	-	same	-	same
Dan	+	-	-	+	+	-	+/-	-
Melissa	-	+/-	+	-	+	+	+	+
Andy	-	+	+/-	-	+	-	+	+/-
Peter	same	+	+	same	+	same	+/-	+
Vicky	same	same	+/-	same	+	+	-	+
Scott	-	-	-	-	+	-	+/-	-

STUDENT	ATTITUDE Eng.	Soc.St.	Sci.	Math	BEHAVIOR Eng.	Soc.St.	Sci.	Math
Miriam	+	+	-	+	+	+/-	+/-	same
Kathy	+	-	+/-	-	+	-	+/-	+
Totals								
+	9	10	(4)	9	(15)	6	4	7
+/-	-	2	4	1	8	8	(13)	8
same	6	5	2	4	-	4	-	3
-	10	8	(15)	11	(2)	7	8	7

Classroom experiences for students did change second semester; some positively and some negatively; some as a result of teacher behavior, some student behavior and some both. Changes for individuals, with two exceptions, were not uniform over the classes. For some the general trend was positive while for others, the trend was negative. For most, the situation was varied.

The two least positively evaluated subjects, science and social studies, provided the most unique experiences for individual students in both a positive and negative direction. And while all subjects seemed to effect positive and negative changes, there were some trends. In terms of attitudes, the deteriorating situation in science stands out. In terms of behavior, the English teachers, who aimed at behavior change, were the most effective. Science probably yielded the highest number of mixed behavior changes because the teacher in effectively eliminating behavior she disliked also discouraged general participation.

One cannot generalize that interactive patterns are resistent to change or that extremes in experiences become further differentiated or that change in interactive patterns are easily accomplished. All possibilities exist. The particularistic nature of teaching defies generalization. But we do see patterns emerging for individual teachers. There seemed to be characteristic responses because of the particular teacher's reaction to formal feedback, their own mid-year assessments, their values and personal agenda as well as spending four more months with these students.

While all the teachers reacted positively to receiving information about individual students, their willingness and ability to utilize such information varied greatly. From the feedback conferences and their behavior second semester, it became clear that many teachers felt compelled to focus on management. Although five of the nine teachers (Ms. Science, Ms. English, Ms. Social, Ms. Langarts, Ms. Geo) were primarily concerned with management problems, their strategies in coping with second semester were distinctly different, reflecting their own personal styles and values. And, hence, the impact on the experience of individual students was likewise varied. Similarly, the four teachers (Mr. Social, Mr. Science, Mr. English, Ms. Math), freed from management and curriculum concerns, did not embrace the information on individual students in the same manner. Again, they seemed to use the information in a way that coincided with their view of the teacher's role.

Management of their classes was preoccupying Ms. Science, Ms. English, Ms. Social, Ms. Langarts and Ms. Geo at mid-semester. For all but Ms. Science, their concerns may partially have reflected the concerns of their supervisors. Their different strategies of coping met varying degrees of success and generated different affective outcomes.

Ms. Science's emphasis was on management, subject matter mastery and coverage rather than affect. She did meet her objectives of decreasing disciplinary action and dependency behavior on part of the students, but in the process seemed to depersonalize her interactions with the students. She developed few special relationships with students who were generally discouraged with the elusiveness of success in science. A large number of students faded from the scene. Three out of four students who did feel more positively about her were unique in that they managed to obtain special attention from Ms. Science either because of academic needs or behavior problems. But generally, although her classes were even more

controlled and task-oriented than they had been first semester, she was unable to create a supporting classroom climate.

Ms. English's focus this semester was on gaining better control of her classes, at which she was quite successful. Through a variety of means including changes in class activities, her general behavior and her treatment of certain behavior problem students, she gained greater control of her class but the experience was not as positively rated by the students. Information on individuals, although positively received by Ms. English, seemed only to have an effect when it coincided with her management problems. Having decided to gain better control, attention to individuals other than discipline problems became a lower priority. Hence, in her relatively loosely structured classes, the experiences of non-behavior problems did become more differentiated. As in Ms. Science's classes, many students "faded" from the classroom scene. But here the "faders" included some with severe academic problems. And the more vocal students became more dominant. Here where the teacher's focus was on her own management problems, the experience of most individuals became increasingly differentiated. Like Ms. Science, Ms English's greater control of her class was accomplished at some expense.

Ms. Social struggled to obtain better control of her classes through increaased attention to individuals who demanded her time because of behavior and academic problems. This type of approach to management problems while understandably failing to solve her control problems did help personalize her relationships with individual students, defusing some of the hostility seen at the end of first semester. Generally, the successful students who were less visible second semester reacted favorably to their new condition probably because interaction with the teacher was not valued here. Most of those students whom she did focus on second semester because of their behavior or academic problems felt more positive about what was happening. Her discipline problems remained, but five

out of seven of them reacted less negatively to social studies classes. Only two firmly established behavior problem students were more hostile in May. Combined with her greater, more personalized interaction, Ms. Social, who still used evaluation as a threat, may also have lowered her standards to give more students a feeling of success. She was trying on several fronts to be more responsive to students in order to gain the control which continued to be problematic. In the meantime, she did diffuse some of the hostility towards her and turned around a deteriorating situation, providing students with a generally less negative experience in social studies than might have been predicted mid-year.

Ms. Langarts tried in vain to decrease her management problems by changing seats and giving more specific assignments. But her real priority seemed to be the progress of individual students in English. She was very aware of her own personal reactions to different students, prefering some and disliking others. She tried to compensate for these feelings in terms of the attention she gave them. And she did have a unique ability to maintain a fair balance in her interaction between those with needs and those who could deliver. She was enough in control of the interactinn patterns to adjust to changes in student behavior, maintaining a relatively equal amount of attention and eliminating extremes in interaction patterns. Tolerating a level of noise and activity which might be viewed negatively by an outsider, she selectively and systematically attended to all individuals in her class. Her skill at the gate-keeper role was the crucial factor in avoiding a chaotic situation where the demanding students would have taken over. In her own personalized way, she got to know some of the students she "hadn't gotten to" first semester, defused her two behavior problems, kept a loud, assertive boy from becoming a problem, and discouraged the annoying dependency behavior of two girls. Students continued to generally respond favorably to Ms. Langarts and the very individualized attention she provided

them while at the same time permitting them considerable freedom.

Ms. Geo's tolerance for noisy classes increased greatly as she seemed to give up trying to get better control of the class. Instead she decided to focus on instructional help for needy individuals rather than disciplinary action for disruptive students. Her emphasis on individuals shifted from one extreme to another, perhaps partly at being "surprised" at how much disciplinary action some students, including a few with academic problems, received and partly because she had been frustrated in her attempts to control the students. Because of the large number of students in both extreme groups, behavior problems first semester and academic problems second semester, her attention to the well-behaved, performing student was minimal. She seemed to assume they were all right since they were not problematic extremes.

Without any major management or curriculum concerns, Mr. Social, Mr. Science, Mr. English and Ms. Math were freer to respond to data about individual students. Their response to second semester reveals that being in control of management and curriculum does not lead to any more predictable reactions vis a vis their treatment of individual students. Their responses seemed to be natural extensions of their first semester behavior which reflected varying interpretations of a teacher's role.

Relationships in Mr. Social's class, which included some unique special ones, continued to develop second semester in a more or less natural manner. He continued to work with earlier identified problems. While some relationships bloosomed as a result of continued special attention, a few others were not accorded the attention to which they had become accustomed first semester. The three students who had taken up a disproportinate amount of his time first semester were given more average treatment, probably as a result of his lowered tolerance of the loud, assertive behavior of two of them and his frustration with the academic problems of another. These reactions seemed a part of his generally more critical, abrupt,

less patient behavior this semester, which half the students, not only the victims, reacted to negatively. The only clear recipient of new effort by the teacher was a successful, quiet student who seemed to prefer his previous low-profile. Mr. Social seemed to be the kind of teacher who had made judgments on individuals quite early in the semester and established particularistic relationships with his students; his adjustments as the semester wore on seemed influenced mainly by his reactions to their behavior and his lower tolerance level for troublesome behavior.

Mr. Science was the only teacher who kept his own systematic record on teacher-student interaction, both for evaluation and intervention purposes. Perhaps because his concerns coincided with the feedback data, he was the teacher most obviously affected initially by the observer's return to the classroom. He interacted at a much higher rate, especially with the subjects being observed. Over the semester, he did interact more than first semester, but he singled out the subjects less frequently than on the first day of second semester observation. His emphasis seemed to be primarily on equalizing interaction quantitatively. Hence, second semester was a natural continuation of first semester for his class.

Mr. English, maintaining a "tight ship," was able to respond to the unique needs and talents of many students. Most of these were actually continuations of relationships already developed first semester. The feedback data suggested to him a need to motivate two very quiet students to participate more in class. Behaviorally, he succeeded with one; in terms of attitudes, his success was questionable, particularly with the one he could not get to participate. Mr. English's ability to spend so much time focusing on individuals is probably related to several factors: his control of the class; presence of a student teacher for eight weeks; his confidence about the curriculum and his teaching; and the fact that amidst many responsibilities, this was his only seventh grade class. Conditions for attention to individual students were excellent, and he had the interest in

responding to his class in this manner.

Individuals were also a primary focus of Ms. Math whose management and curriculum concerns were under control. As homeroom teacher, her concerns were not only for achievement and behavior, but also for the social development of her students. She knew them extremely well and was able to create unique experiences for a large number of her students. Second semester, we did not see the "fading" we saw in other classes and different students filled the favorable extreme positions in the interaction patterns. She did give more attention to two groups of students: three with poor work habits and three with severe academic problems. The first group represented those average students who were generally slighted in terms of teacher attention in most classes. They responded well to her unusual concern. The other three did not fare as well. Her focus on individuals provided them with a pressured environment in which they were forced to work within a curriculum which had already doomed two of them to failure by mid-year. The situation became increasingly frustrating for them and Ms. Math. Several other students were also critical of the deteriorating situation for some of their classmates. A few seemed to respond negatively to her tougher grading and emphasis on achievement rather than atttitude second semester, but most were too committed to Ms. Math to indicate concern. Generally, Ms. Math, with all her individual sensitivity demonstrated in personal interaction as well as in her modified mastery learning evaluation system, was able to create the most postive classroom environment for the largest proportion of her students. The kind of feedback delivered in January just complemented the information already gathered by this very aware teacher.

Undoubtedly, there are other characteristic responses of teachers not captured in our nine vignettes, but they do suggest that the potential effectiveness of giving teachers feedback on individual students is greatly affected by the concerns and personal agenda of the teachers. Awareness is not predictably corrective. We find that a teacher's reaction is uniquely processed: even those

who focused on management responded differently. Teachers varied in their responsiveness to receiving objective data about their classrooms, their interpretation of that data, and their willingness and ability to act upon the data. Diverse values and visions of the ideal were revealed as they reacted to the data. For instance, not all teachers seeing extremes in the experiences of individual students immediately sensed a need to equalize their treatment; and for certain students, a teacher's intuitive sense was more desirable than some idealized interaction pattern. We also find that desire to respond to individuals in one's classroom was not enough; one either has to have successfully mastered curriculum and management concerns or be willing to tolerate less than ideal resolutions in these areas. The teachers demonstrated different capabilities in creating positive experiences for their students as they responded to the demands of second semester.

Implications:

Awareness is not predictably corrective. In any research designed to measure the effectiveness of providing teachers with information about their treatment of individual students, the variety of teacher response to similar data is very likely to serve as a confounding variable. It is clear that findings for teachers as a group may mask individual differences amongst teachers which do have perceptible effects in the classroom. And it is clear because of our teachers' unique responses that any intervention demands follow-up to examine what is actually happening in the classroom.

As a National Institute of Education conference panel concluded, " we need to know far more than we now do about the mental life of teachers."[12] One reason so little research is implemented in preservice and inservice teacher education, another N.I.E. panel concluded, is that the "validity of knowledge statements about teaching is unknown until the question of how teachers use this knowledge is investigated."[13] We need to know more about the constraints, legitimate and

perceived, upon teachers as they try to react to individual students while coping with the demands of classroom life. We need to know more about the patterns of interaction as they change with the passage of time and the influence of group experience.[13a] And we need to know more about the effects of intervention at a variety of levels: observing what actually happens in classrooms rather than just measuring outcome effects and assuming a similarity of response to intervention. As Good and Power state, "if a theory of teaching is to be achieved or if successful intervention in the educative process is to occur, we need to develop conceptual and research strategies which match the complexity of the classroom setting and its inhabitants."[14]

The study speaks to the need for research techniques which will be useful to the teacher as well as the researcher. Development of observational instruments which provide teachers with objective, accessible and meaningful information is necessary. For teachers, the individual is the most appropriate unit of analysis. This is the level of much daily classroom life and the one to which most teachers are sensitive but not necessarily always aware because of the demands of classroom life. Data using the individual as the unit of analysis, as unwieldly as it is for the researcher looking for generalizable knowledge, is very useful to the classroom teacher. Observational techniques which not only use the individual as the unit of analysis but also allow the reconstruction of the actual sequence of events are particularly useful to the practitioner. Such data exposes the complexity of classroom life and helps make teachers more aware of what is happening to the individual child. It can jog many teachers out of their reactive stance, for it provides them with information about particular students, idealistically the focus of most adults who choose teaching as a profession. These advances will help integrate classroom research and classroom practice, an important contribution to improving what is happening in schools.

As Elliot Eisner has said, "educational practice as it occurs in schools is an inordinately complicated affair filled with contingencies that are extremely

difficult to predict, let alone control." [15] While the study does suggest that predictability of effect is precluded if one just gives teachers descriptive information to increase their awareness, it does not necessarily follow that prescription is desirable. Prescription, besides being of questionable value given the complexity of classroom decision-making and the influence of teachers' style and judgment, runs counter to the professional autonomy accorded teachers. And as Dewey reminded us, "Nothing has brought pedagogical theory into greater disrepute than the belief that it is identified with handing out to teachers recipes and models to be followed in teaching." [16]

Teachers in this study were extremely receptive to the non-evaluative, descriptive information about the schoool experience of individual students. Classroom life is an incredibly fast-paced existence which makes observation of individual students, a generally valued activity, difficult for any teacher. And receiving objective, usually unobtainable information about the relative experiences of students in other classes was especially appreciated. Teachers wanted more frequent feedback and many seemed eager to establish a dialogue with the observer.

Viewing the teacher as a clinician and respecting the discretionary autonomy exhibited in the unique way they process this non-prescriptive, non-evaluative feedback, an observer-researcher has the potential to help teachers facilitate their own goals. Teachers could direct and respond to information collected about individual students in their classrooms. The observer, accountable to teachers rather than administrators, could contribute to the teachers' professional growth by helping them achieve their own objectives and, when requested, by arraying alternative strategies from which teachers could make choices. The dialogue established, unique to each observer-teacher dyad, would hopefully facilitate descriptive, analytic and prescriptive thinking on the part of teachers as well as increase researchers' understanding of ways teachers cope with classroom life. While not as direct a method of improving education as most

intervention proposals, perhaps it is time to begin questioning our scientific paradigm. As Eisner explains in his recent article on educational connoisseurship and criticism, "I start with the assumption that the improvement of education will result not so much from attempting to discover scientific methods that can be applied universally to classrooms throughout the land, or to individuals possessing particular personality characteristics or to students coming from specific ethnic or class backgrounds but rather by enabling teachers and others engaged in education to improve their ability to see and think about what they do." [17]

Obviously, such a plan places a great faith in teachers' ability and willingness to improve classroom life for individual students. This faith in teachers needs to be restored. Ultimately, there is no other choice.

FOOTNOTES

1 Jere Prophy and Thomas Good, Teacher-Student Relationships: Causes and Consequences, New York, Holt, Rinehart and Winston, 1974.

2 Karen Kepler, "The Evaluative Environment of Classrooms," unpublished Ph.D. dissertation, The University of Chicago, Chicago, Illinois (1977)

3 Jere Prophy and Thomas Good, Teacher-Child Dyadic Interaction: A Manual for Coding Classroom Behavior, Austin, Texas, The Research and Development Center for Teacher Education, The University of Texas at Austin, December 1969. (See Appendix I, I-a)

4 Henriette M. Lahaderne, "Adaptation to School Settings: A Study of Children's Attitude and Classroom Behavior," unpublished Ph.D. dissertation, The University of Chicago, Chicago, Illinois, 1967. (See Appendix II)

5 Emmy Pepitone, "Comparison Behavior in Elementary School Children," American Educational Research Journal, 1972, 1, 45-63. (See Appendix III)

6 Morris Rosenberg, "Psychological Selectivity in Self-Esteem Formation," in Sherif and Sherif, eds., Attitude, Ego-Involvement and Change, New York, Wiley, 1967, pp. 26-50.

7 Stanley Coopersmith, The Antecedents of Self-Esteem, San Francisco, California, W.H. Freeman and Co., 1967.

8 Wilbur B. Brookover, Jean M. LaPere, Don E. Hamacheck, Shailer Thomas, Edsel L. Erickson, "Self-Concept of Ability and School Achievement Through Students' Self-Concept Enhancement," O.E. Cooperative Research Project # 1636, Bureau of Educational Services, College of Education, Michigan State University, 1965.

9 The evaluative environments as they developed first semester are described in detail in Karen Kepler, "The Evaluative Environment of Classrooms," unpublished Ph.D. dissertaion, The University of Chicago, Chicago, Illinois (1977), chapters 4,5.

10 Kepler, chapter 6.

11 Math and then English were the most positively rated subjects all year. Social studies and science were the most criticized subjects all year. Detailed descriptions of students ratings and preferences can be found in Kepler, chapter 3, 4, 5, 6.

12 National Institute of Education, Panel Summaries from the National Conference on Studies in Teaching, Washington, D.C., December 1974, Panel 6, p.1.

13 Ibid, Panel 2, p. 2.

13a Ibid, Panel 2, p. 3.

14 Thomas Good and Colin Power, "Designing Successful Classroom Environments for Different Types of Students," unpublished paper, 1976, p. 1.

15 Elliot Eisner, "On the Uses of Educational Connoisseurship and Criticism for Evaluating Classroom Life," Teachers College Record, 76, 3, February 1977, 346.

16 John Dewey, Democracy and Education, New York, Macmillan, 1916, p. 199.

17 Eisner, Op.Cit., 346.

Appendixes I, I-a, II, III follow.