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Descriptors-\*EVALUATION, \*FILMS, PERFORMANCE FACTORS, \*PRESCHOOL TEACHERS, TASK ANALYSIS, TEACHER CHARACTERISTICS, TEACHER EVALUATION, TEACHER INFLUENCE, \*TEACHER RESPONSE, TEACHING METHODS, \*TEACHING STYLES

Six teachers were given instructions and materials with which to conduct a 20-minute teaching session. The sessions were filmed. The films will be scrutinized to obtain comparisons of teaching styles, tasks (the instructions and materials provided each teacher), and teacher-task interactions. The films have not been completely processed yet and so no data is available. Several scales have been determined which will be used to classify teaching styles: (1) control, (2) approach to child activities, (3) value, or orientation of classroom activities, (4) warmth, (5) humor, (6) flexibility, (7) direction, and (8) differentiation. An appendix describes the four tasks given each teacher; (1) masks, (2) balloons, (3) homes and families, and (4) games. (WD)



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#### HEADSTART EVALUATION AND RESEARCH CENTER

**BOSTON UNIVERSITY** 

TEACHING STYLE:

The Development of Teaching Tasks

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Frank Garfunkel

#### ABSTRACT

Tasks were developed and presented to Headstart teachers in order to facilitate descriptions of variation in teaching style. Twenty minute samples of teaching according to task instructions, were filmed so that inter and intra teaching comparisons could be carefully analyzed by diverse observers, thus permitting concommittant study of observer(ing) variation. The use of tasks provides sufficient standardization to permit observers to make accurate predictions, regarding subsequent task teaching behaviors. Systematic variations in task requirements will provide a basis for studying more and less invariant characteristics of teaching style which will generate variables that intervene between content and methodology, and individual and group behaviors of children.



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Miss Anne Coolidge perceptively and tenaciously assisted in the development and administration of tasks. Professor Alvin Fiering directed the film making with extraordinary sensitivity. Teachers and observers involved played a critical role throughout the project.

# TEACHING STYLE: The Development of Teaching Tasks<sup>1</sup>

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## INTRODUCTION:

In order to facilitate comparisons between teachers, tasks were presented to teachers to be carried out with their classes. Teachers were directed to teach with given instructions and materials for approximately twenty minutes. These procedures were used to explore the feasibility of designing, using and recording (filming) tasks in order to provide a vehicle for studying contrasting teacher styles. By having each of six teachers use five separate tasks, it was possible to systematically compare teachers across tasks, and tasks across teachers. As three of these tasks were filmed, there is a permanent record of performance which can be used to study related perceptual styles of performing teachers, observing teachers and other observers. Although, for the purpose of this developmental study, the films are, themselves, the data from which such inferences are to be drawn, it is possible to infer reductions and to make consequent, quantitative within and between teacher comparisons.

The focus of these tasks and films has been to internally validate the use of tasks as a viable technique for comparing irreducable components of style by filming and presenting a series of integrated constellations of behaviors. While the biases of the investigators are implicit in the types of tasks selected, the existence of films provide an objective base for distinguishing stylistic variations in types and degrees of control of materials and situations, and in operational definitions of work and play and their relationship to learning.

Problems of external validation have been only partially and informally dealt with by reviewing teachers' performances in three filmed tasks and two non-filmed tasks in order to ascertain whether there is consistency. Put in other terms, given any one task which is filmed and/or anecdotally recorded, can accurate predictions be made about performance of tasks? With a single exception, it was possible to make



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rather precise forecasts as to how teachers would handle subsequent tasks, specifically with regards to type and degree of control, position of teacher in elaboration of tasks and work-play dichotomizing as it was acted out by the children. The relation-ship of style to behavioral effects in children outside of the classroom was not attended to either concurrently or longitudinally.

## RATIONALE

Although it is rather simple to get teacher variation on any number of dimensions, it is extremely difficult to unravel confounding of teacher, child, curricular, and interactional variables. This is particularly true when dimensionality of teaching behavior is constructively linked with child behavior. Too often the abstraction of teaching behavior is temporarily and conceptually disconstituous with child behavior and it is not surprising that it has been almost impossible to document the relationship of one to the other. Teachers are measured independently of children and children are measured independently of teachers. This leaves an unknown and unseen terrain—a kind of black box—in which input and output can be documented but for which interaction is ignored. Generally, interactions are attended to separately (Flanders, 1965) and are not necessarily a part of the design that aims at qualifying output by carefully considering the nature and extent of interaction. Furthermore, it is not all clear as to whether given interactional patterns are cause or effect or whether they have been generated because of traditional or teleological determinents.

The theoretical-methodological problem revolves around the choice of an operational structure of variance and invariance. This pertains not only to sample selection—grade level, subject matter, teacher characteristics—but also to measurement strategies—achievement tests, performance in another situation, observational protocols, tape recordings, films. What is to be held constant? What will vary? How will the behavior be recorded and then measured? How will the connection between teaching and learning be established and cross-validated so that we can logically deduce one from the other?

Although holding grade level and subject matter constant would appear to be a useful quasi-experimental device (Bellack et al, 1966), it is necessary to be aware of an implicit trap in this procedure. It may very well be that grade level and subject matter invariance are trivial with regards to teaching-learning variation. Perhaps there are teachers in different grades and subjects that represent a far more critical type of invariance—one that is connected with motivation, transference, values, and creativity. If this is so, then our inferences from grade and subject controlled studies will be only trivially related to either situation or individual outcome. This is by way of saying that holding grade and subject constant does not guarantee that resulting variation of either situations (classroom behaviors) or children (achievement tests) will be meaningfully related to any given dependent variable. However, in spite of this caution, the disregarding of grade and subject would necessarily encumber the comparability of observations. What is needed is control for more obvious independent factors and also control on teaching behavior variation that is more directly related to child behavior over time.

It is not at all clear as to what an optimal segment of behavior might be for any given study. Some studies focus on highly specific signs or categories of motor and



verbal activity (Medley and Mitzel, 1963). Participant observation studies consider institutional behaviors over time without specific reference to fragments except as they relate to the developing hypotheses of observers (Becker, 1952, 1953). One study of classroom language behavior used transcriptions of social studies classes and content analyzed thematic material (Bellack, et al, 1966). Critical incident techniques define episodes as they take place in classrooms and analyze them with respect to a field of forces operating in the class (Flanagan et al, 1958). Operant procedures have been applied to teacher and child behaviors in order to study highly specific child-teacher contingencies (Haring and Lovitt, 1967). Each of these strategies is, at the same time, trying to more adequately understand teacher and child in classroom situations and effectively deal with that behavior. The theoretical system from which each is derived is not as important as the logical construct of which it is a part. Method and definitions of behavioral units implicity reflect educational values towards intervention and change.

The several measurement strategies mentioned above vary as to whether or not direct manipulation is involved, and there is a direct connection, over time, between teacher ( or class) behavior and individual child behavior. In all of these examples, however, there is either an implied or explicit dependent variable. Classroom behaviors have been studied in order to determine variable effects naturalistically or as a result of specific manipulations. As the desirability of any posited effects is, necessarily, moot it remains to judge strategies either purely in terms of pedagogy or in terms of diverse effects on children over time, including transference of obtained behaviors to other times and situations. Too often, pedagogic variation is buried because of methodological problems in obtaining consistant data. as difficult to identify competence in teachers as it is in personalities. performance criteria do not hold up either concurrently (consensus comparisons with other teachers by skilled raters) or longitudinally (relating teacher characteristics to differential achievement performance of children). The failure to identify competence can be partly attributed to several sampling and methodological problems. The homogenizing effect of procedures for selecting and retaining teachers, children and curricula might contribute to the reported error of incorrectly accepting the null hypothesis. For example, if unusually competent and incompetent teachers are eliminated from a sample, the variance will be restricted and differences needed to reject the null hypothesis will be excessive. Furthermore, the pairing of teachers with children of different social classes and abilitites is highly selective, as is the placement of children within schools. Finally, commonly used tests have been developed on the basis of principles and goals that are, in general, at variance with those of intervention. Items that are sensitive to differential treatment appear to be unreliable and are, therefore, eliminated. Probably the strongest single factor that effects item selection for achievement tests is very much developmentally oriented -- which results in items being highly correlated with chronological age. If, as it would appear, most measurements used are heavily weighted in this direction, it is unlikely that they will reflect differences due specifically to teachers or. in general, to interventions. Thus, in eliminating items which would tend to reflect day to day subject variation, likely indicators of other sorts of variation are also



purged.

The teacher tasks to be described herein have been developed to speak directly to questions of competency and change, both in children and teachers. In order to deal with the relation of competency to change over time with respect to transfer, it is first necessary to determine the nature of situational presses on children and the effect of these presses, if any, over time but within confines of evolving situations. The first question is conditional -- if a given teacher (class) has an effect on a particular child, what is it most likely to be? The distinction between the teacher's effect on the class and the differential effects of the class on individual children must be made. But it is doubtful that the latter will be apparent and measurable unless the former is carefully described in terms that cover a broad range of variation. This should eventually provide a basis for dealing with the ultimate question which must be asked about any sequence of behavior that takes place in a class--how appropriate is it for individual children that are exposed? It is not enough to describe the various methods and materials used, nor even the ways in which they are applied. Eventually, attention must be directed to the quality and substance of interventions that children are involved in during the course of the school year.

The use of twenty minute tasks units provides samplings of behaviors that cover reasonably concise cross sections. These include presentation and distribution of materials, implicit or explicit instructions, development and facilitation, transitions, and denouments. The common task across teachers minimizes the difficulty of focusing upon teaching and reaction variation. This is the same rationale for the development of any standardized procedure.

An important variation in individual testing procedures is the extent to which they call for more or less convergent or divergent responses. If teaching tasks were developed to be related to a training program that called for predetermined criterion responses, it would be possible to design "objective" task presentations and scoring procedures. Such criterion responses have been developed at the University of Kansas and have been reported in thus far unpublished manuscripts.

The alternative is to vary tasks and evaluation procedures along the "projective" (divergent) end of the "projective-objective" continuum. Teachers are given stimuli in the form of materials and rather open-ended instructions, much as an individual subject is given a series of Thematic Aperception tests cards. Instead of a strictly verbal response, the teacher gives a complex behavioral response over a designated time and space interval. Themes can be inferred from films or anecdotal records of task responses. It is also possible to use direct behavioral recording or rating scales in order to compare teacher over tasks and teachers over a single task. Contrasts can be facilitated by varying amount of structure in directions and content of task, selection of teachers with greater and lesser stylized approaches to teaching, time between teachers receiving instructions and performing task (latency), age and characteristics of children, history of class, and available physical facilities. The accomplishment of tasks with teachers that have relatively similar groups of children, physical facilities and group history, with systematic variation over content and



latency of tasks would be the ideal way to bring stylistic variations of teaching into relief.

## TEACHING STYLE

Dimensions of style are measurable variations in approaches used in teaching, rather than what is taught or, strictly speaking, the methodology used. Style, if properly conceptualized and operationalized, will vary over teachers, but will be invariant over groups, content and methodologies. It is, of course, possible that requirements of these aspects of teaching situations can be so stated as to imply style. However, the usefulness of the proposed model requires that overlap be minimized. Variables of style can then be conceived as intervening between inputs (class and teacher history, content, methodology) and outputs (effects on children, teachers and situations.)

Style must be inferred from the daily confrontation that takes place in classrooms. There should be little question about the dynamics of reactiveness that leads to any given confrontation. Teachers' personalities will effect choice of methodology and content which will, in turn, be effected by teachers' reactions to groups of children and supervision. It is postulated that while a given teacher's methodology will vary over time and situations, style will remain relatively constant even if an aspect of style is predictable erraticism. This is analogous to the construct of "cognitive style" as it has been recently articulated in developmental literature. Teaching style differs in that it must be inferred from classroom (interpersonal) situations. However, it is not group interaction analysis nor a study of pedagogical techniques, both of which are subject to variation having to do with immediate environmental demands.

Classrooms develop personalities or temperaments with more or less superficial components. Style focuses on components that are a function of teacher variation, which are relatively stable. Definition and description of style can only come about with systematic variation of non-stylistic factors. The residue of between teacher variance will provide the ultimate scurce for hypothesized domains of style. must be further modified by the response variation which can be broadly conceptualized as participation and interaction. These will, as has been previously stated, further effect style, which will be a continuing series of response sets on the part of the teacher. The extent to which stylistic variation can be empirically partialed into relatively independent dimensions is moot. It is just as likely that an ipsative approach would be more appropriate. This would lead to a factorial study of teachers rather than scales. Methodologically, this would call for multi-task studies of teachers so that their ability to deal with a variety of situations would lead to detailed assessment of intra-teacher variation, which is required for this approach. Tasks would be designed in such a way as to systematically underline expressive reactions to content and behavior so that characteristic and reliable mappings could be generated. It is essential that this strategy should not depend upon linearity and additivity unless obtained data is consistent with these assumptions.

Style is inferred from the behaviors of teachers and children in classroom activities. There is no presumption that any particular teacher—child interactions occur, only that classroom activities reflect style by constellations of individual and interactive behaviors. In order to distinguish these constellations a number of behavioral scales have been conceptualized and variously operationalized either directly by behavioral recording, indirectly by utilizing rater judgements or complexly by inferring ratings from sequences of more and less discrete responses of teachers



and children. These scales are listed in tabular form as follows:

Scale Name		Basis of Recording	Polarities	
1.	Control	Direct	Teacher	-Child
2.	Approach	Complex	Punitive	-Supportive
3.	Value	Complex	Work	-Play
4.	Warmth	Judgemental	Rejecting	-Accepting
5.	Humor	Judgemental	B1and	-Humorous
6.	Flexibility	Complex	Rigid	-Adaptive
7.	Direction	Direct	Aimless	-Purposeful
8.	Differentiation	Direct	Undifferentiated-Individualized	

These scales are a first approximation of relevant components of classroom atmosphere. The goal of the measurement procedure is to describe selected aspects of teaching-learning situations as they evolve in more or less structured tasks. Relevance of particular scales to any given tasks will be a function of the demands of both tasks and teachers. Therefore, additional scales will be developed to obtain data on different tasks. While the importance of any single scale will depend on task requirements, it will also be a function of the behavior being studied—stylistic variation. Admittedly, the procedure of allowing criteria to be a function of behavior is complex and somewhat tautological, but to hold criteria constant would lead to the collection of reliable, but irrelevant data. Teaching is certainly not as simple and uniform as straight forward normative measurement procedures would imply. Measuring style has to come to grips with dilemmas of nominal scaling before ordinal comparisons can be meaningful.

Although no definitive position can be taken with regards to the most effective level of abstraction to be used to most validly differentiate teachers, the development and use of these scales and tasks has involved a strategy that calls for maximum reliance on the experience, training and intelligence of observers and the development and use of contrasting tasks used in objectively different ways, rather than on the careful and restricted definition of items which requires only that observers be trained in a particular methodology. "Objective" tests are always restricted by item format and sampling—a restriction which often leads to objectivity only with respect to scoring. Similarly, category and sign systems used for direct behavioral recording are, in general, objective or reliable only in so far as data collection is concerned. Whether these methods permit objective



(valid) sampling of content is open to serious quastion. The limitations of reliable procedures can severely determine the size and type of behavior that is recorded. Scoring reliability requires mechanical procedures so that least-common-denominator observers and definitions can be used, whether or not they are appropriate.

Measurement calls for a weries of controls so that confounding of different varying elements can be minimzed. These controls can pertain to observers, situations, or procedures. The above scales call for situational control (common tasks) and observer control (measurement of observers) which, if successful will allow for procedural simplicity in order to minimize the need for control.

Scales were selected deductively by experienced and trained observers as a result of a series of formal and informal exchanges over nominal comparisons between teachers. After extensive observation of forty Headstart classes, observers were required to rank teachers according to whether they liked or disliked their style. The initial nominal distinctions conceived of each observer as representing a different point of view. Extracting the dimensions of observer variation gave a first approximation of nominal style variation. (As the number of observers was small (six) the data was treated informally.) Selected scales appear to best differentiate observer-teacher (object-subject) co-variation. This is to say disregarding whether observers liked or disliked styles of particular teachers, the scales best differentiates observers' judgements in terms of values inferred from their selection of effective (good) teachers. While most measuring instruments are static in that their published format remains unchanged through repeated usage, these scales are meant to be part of a change process. Accomodation and revision will be expected and included as an inegral part of the methodology. In light of this, specific operational definitions would be fatuous. A more realistic operational approach calls for exploring variation as a reciprocal function of definition.

Control depends on teaching, but it also is a function of the values, sensitivity and perspective of observers. Definition which relies on either teaching or observation alone will produce artificial boundries that isolate trivia. A preferable strategy is to communicate the meaning of scales by raising questions about behavior which can be addressed both to teaching and to observers. For control, who controls (or should control) the selection, initiation, continuation, and termination of activities and interactions? and is mastery only a question of skill, cognition and perception or does it not also include control rather than dependency?

Every scale modifies every other scale. When control involves teacher-child interaction, does approach consist of reinforcement or sanctions and are they punitive or supportive? Is it carried out with humor or blandness? These are not questions that lend themselves to the specific and arbitrary behavioral definition that is necessary for wide standardized application. An understanding of humor in teaching will be obtained intensively by teams of observers who struggle with their differing interpretations with suitable procedures and recording equipment. Standardization will be validly obtained only when an explicit reflection of value conflicts is built into structured variations of procedures and definitions. There must be agreements to disagree so that legitimate points of view can contribute to methodological differentiation. This will lead to variations in not only definition of size and type of behavioral units, but to depth of focus as well. Direction can focus on consitant and sustained use of materials but it can also aim at social—emotional interactions of children and/or adults.



Scales are theoretically independent of each other. Therefore, refinement and elaboration will depend on locating teachers and observers who have relatively unique profiles. Inter-scale correlations obtained on these and similar scales range between .50 to .70 (2/3 of correlations) and agreement on ratings of each teacher and scale are all between .50 and .60. Scale ratings uniformally correlate with total scale score between .75 and .90. Overall agreement on mean ratings on all scales ranges between .70 and .80. Thus, there is a fair amount of scale independence but it would appear to be partly a function of observer-rater variation, or, perhaps more accurately, of operational ambiguity which, as has been suggested, is vital to this methodology.

The development and use of these scales is explicitly tied to the task strategy which includes the recording (film) of samples in order to allow for concommittant studies of rater variation. Their use in unrestricted situations where materials and methodologies are fortuitous will confound observer and teacher variables, and resulting data will necessarily be suspect. Furthermore, the use of tasks (and the accompanying scales) assumes considerable knowledge about developmental levels of individual children and, particularly, the existence of intellectual and emotional disturbance of children in the classroom.

## **PROCEDURES**

Thirty tasks were developed by six observers, each of whom had considerable prior experience as teachers of preschool children and as observers of Headstart classes. Each task consisted of listing of necessary materials, procedures, instructions to be given teachers, rationale and method outcomes. Particular emphasis was given to eliciting variation in teaching behavior along the scales of control, approach, and value. Many of the tasks were reviewed with a group of Headstart teachers who had volunteered to take part in a pilot project which would include extensive observation of classes, anecdotal recording of snack time behaviors, trying out selected tasks and filming three tasks for each teacher. The group of six teachers agreed to try two of the film tasks with a two to three day delay between getting instructions and doing tasks, and one of the tasks with no delay—the instructions and materials were presented and the task was done immediately thereafter.

This resulted in eighteen 20-minute filmed tasks, three each for six teachers and their classes. Because of the considerable expense involved, initially only two of these films were processed so that they could be widely shown and plans could be thoughtfully made about processing any or all of the other sixteen films. All films were reviewed in their unprocessed state (sound and picture on separate tages). As a result, twelve films (six teachers, two tasks) are being processed.

Anecdotal reports were written for all filmed tasks by an observer in the classroom at the time of filming, and for two additional tasks, including a snack time for each of the six classes.

Data comparing teachers, tasks and teacher-task interactions will be obtained when films are ready. However, the purpose of this pilot project was to develop, use and film tasks in order to demonstrate their effectiveness in showing stylistic



variation. The data will be used to communicate dimensions of variation that are shown by the films, not to directly describe variation. In a very real sense, the films are the data. Validity will be ascertained by comparing individual teachers on several tasks and films to anecdotal reports.

At each phase of the pilot project, observers were required to make general (scales) and specific (behavioral) predictions about teaching in succeeding tasks. For five of the six teachers the predictions accurately forcasted ensuing tasks, both generally and specifically. The procedure used was relatively crude because of the great stress on task development and the limited number of teachers. However, the success of the procedure suggests that the number of tasks needed to characterize the style of a given teacher will be a function of the accuracy with which predictions can be made of each succeeding task. Predictive efficiency could also be a criteria for the desireability of filming particular teachers and tasks.

## TASKS

Proposed tasks included games, construction with different kinds of materials, science, language, color discrimination, music, fantasy activities, and food preparation. They range from completely open ended activities ("do anything you want with these materials") to highly structured sequences. Some of the tasks implicitly or explicitly involve conflict (cops and robbers, not enough materials for all children) and others were directly concerned with language, discussion, story books, verbal games. Some were directed at small groups and others at the entire class, including other adults.

In selecting tasks an attempt was made to use materials and activities that, although familiar, were not commonly used on a daily basis. The exception to the latter condition was the use of snacks as a task. In order to get a first approximation of stylistic differences, the first (and non-filmed) "task" involved observing each class during their snack period. First predictions followed from this.

Four other tasks selected, three of which were filmed, included the following:

- 1. Masks
- 2. Balloons
- 3. Games
- 4. Homes and families.

Complete descriptions of these tasks are included in the appendix.

Tasks were selected to include a variety of curricular dimensions. <u>Masks</u> would obviously evoke fantasy and also a distribution problem as only six masks were given to each class. <u>Balloons</u> provided all children with uninflated balloons and was a relatively play oriented task with the possibility of dealing with scientific applications. <u>Games</u> included instructions for teaching children to play baseball and dealings with competition. <u>Homes and Families</u> involved a discussion with the children with the opportunity of elaboration and interaction. <u>Snacks</u> gave the opportunity to compare classes on an established routine.

All tasks offered opportunities for diverse styles of controlling materials



and activities, approaches for supporting or punishing behavior and expression of values with regard to teaching and learning. Although it was assumed that content was theoretically trivial to the purpose of the study it was realized that some tasks would be more provocative, which was desireable because of the goal of getting a characteristic expression of style in a relatively short amount of time.

## FURTHER DISCUSSION

The limited use of the films (because of necessary delays in processing) have shown them to be critical to the careful study of stylistic differences between teachers. This will be set forth in considerably greater detail when processed films are intensively compared by observers representing diverse schools of thought with regards to teaching preschool children. At the same time that teaching styles are being compared it will be necessary to study observer variability. It should be possible to weight ratings on style components according to observer characteristics as inferred from observer reactions to contrasting filmed tasks. In this way, a limited number of films of diverse teachers performing a variety of tasks will facilitate comparisons of a larger number of teachers performing non-filmed tasks.

Of the several components of teaching situations it would appear that teaching style is, at the same time, the most difficult to study and the most critical. Although there are practical limitations, content exposure (curriculum) and responsiveness (participation) can be more or less directly measured by time sampling procedures. The smount of time individual children are talking, painting, dancing, and answering questions can be accurately, even if tediously recorded. Similarly, sustained activities can be classified and quantified. But the way or style in which this occurs is critical to consequent values and dispositions of children. How much children have learned from a school experience is not enough. It is critical to find out and describe how they have learned and how they will approach new learning situations. Even though recall and recognition might be useful indicies of transfer, they are, at best, indirect and often misleading. The combination of convergent accumulations of facts with exposures to determinable teaching styles should provide a more powerful estimation of how children, with equally determinable cognitive styles, will be able to deal with future teaching situations, again with more or less determinable styles.



#### REFERENCES

- Becker, H.S., The career of the Chicago school teacher. American Journal of Sociology, 57, 470-477, 1952.
- Becker, H.S., The teacher in the authority system of the public school. <u>Journal of Educational Sociology</u>, 27, 128-141, 1953.
- Bellack, A.A., Kliebard, H.M., Hyman, R.T. and Smith, F.L. Jr., <u>The Language of the Classroom</u>. New York: Teachers College Press, 1966.
- Bruyn, S.T., The Human Perspective in Sociology-the Methodology of Participant Observation. Englewood Cliffs, New Jersey: Prentis-Hall, 1966.
- Flanagan, J.C., Pumeroy, S.S. and Tuska, S.A. A new tool for measuring children's behavior. <u>Elementary School Journal</u>, 59, 163-166, 1958.
- Flanders, N.A. <u>Teacher Influence</u>, <u>Pupil Attitudes and Achievement</u>. U.S. Department of Health, Education and Welfare, Office of Education, Cooperative Research Monograph Number 12, Washington, D.C.: Government Printing Office, 1965, 126 pp.
- Haring, N.G. and Lovitt, T.C. Operant methodology and educational technology in special education. In Haring, N.G. and Schiefelbusch, R.L. (Eds.) Methods in Special Education. New York: McGraw-Hill, 1967.
- Medley, D.M. and Mitzel, H.E. Measuring classroom behavior by systematic observation.

  Handbook of Research on Teaching. Edited by N.L. Gage. Chicago: Rand McNally,
  1963. Chapter 6, pp. 247-328.



## Appendix

#### DESCRIPTION OF TASKS

## <u>Masks</u>

#### 1. Materials:

- 3 black masks
- 3 white masks (standard Halloween type)
- 6 elastics (unattached)

#### 2. Instructions:

Give the 3 black masks to a boy in your class. Give the 3 white ones to a girl. Do not specify how they are to be used, but only give the children some indication of how they might be worn by saying "these things are called masks and one way you can wear then is in front of your face and over your eyes" (you may demonstrate if you wish). The only children you must say this to are the two to whom you give the masks. Let the children develop any play or game that you feel is appropriate. If possible, let the children have these for at least one half hour.

Pick any boy and girl that you wish (if you do it beforehand make a second choice in case of absence) and we would like you to check a list of adjectives for the ones that describe these two children the best. The list will have such words as "timid, talkative, active, sullen, etc" and it may be checked at the end of the morning after the task has been given.

## 3. Questions:

How does teacher deal with fantasy and agression?
Who controls materials and activities and how is this control handled?
How does teacher and class deal with a situation where there are not enough materials to go around?
How much structure is presented to children?

#### Balloons

#### 1. Materials:

Small balloons of various colors-one for each child in the class and 4 extras

#### 2. Instructions:

Leave approximately 20 minutes of your schedule open for this activity. This time allowance is just to give you some idea of how much time this activity might take so that you can get it into your schedule. Please do not feel bound by this-take more or less time as you feel is needed.

Bring the children together in a group on the floor in a large open space. (If necessary, please push the furniture and equipment to the edges of the room to allow for a large and open space.) Tell the children, "I have one balloon



for each of you to play with today. We have lots of space around us here so that you can play with your balloon in any way you would like. You can move with it, hit it up in the air, or do anything else you would like with it in the next 20 minutes." Add any other directions, suggestions, or comments to the children that you feel would be helpful or necessary but be sure to include the above statements. Give each child a deflated balloon. You will be provided with one balloon for each child in your class rlus a few extras in case there are any balloons with defects or in case any become broken in the process of trying to blow them up.

We would like you to remain available to the children during these 20 minutes but we do not have anything particular planned for you to do during this time so feel free to either participate, direct, or observe as you would like.

You may dispose of the balloons as you would like after the 20 minutes. For example, the children can take them home or you can keep them at school, etc. If any individual children spontaneously ask during the 20 minutes if they can take the balloons home; answer yes or no as you have decided but please don't announce this fact to the group until after the 20 minutes is over.

## Ouestions:

- A. Teacher's ability to anticipate and handle frustration. 1) Does she expect the children to be able to blow up the balloons themselves? Does she anticipate that some children won't be able to do this? How does she handle the frustration of the children who can't blow their balloons up? 2) Does the teacher anticipate frustration from balloons popping and children not being able to have another? How does she prepare the children for this and how does she deal with it afterwards? 3) How does she handle the choosing of colors?
- B. If many children ask for help blowing up their balloons, how does she handle them? e.g. Does she encourage the children to try to do it themselves? Does she blow it up for them? Does she ask the aide to help, too? Does she suggest the children ask each other for help? Does she announce to the group that she and the wide are available for help or does she wait for the children to seek out her help?
- C. Teacher's ability to handle aggression. Do children try to pop each other's balloons? Do they run into each other? If so, how does teacher handle?
- D. What is the teacher's reaction to children whose balloons have popped? Sympathy? "That's life" attitude? "I told you so" attitude?

## Homes and Families

1. Materials:

None

2. Instructions:

Choose a group of children with whom you will spend a period of time on two



successive days discussing their homes and families. We would like to observe during the period inthe morning when you plan to do this. (If the teacher asks about their homes and families just say that anything she thinks would be interesting or good for the children that she is working with.) Write and illustrate discussions with children.

## 3. Questions:

What aspects of environment or family does teacher focus on or does she let children determine what happens? Does she make any attempt to talk about feelings?

How are children involved in writing and illustrating discussion? How does teacher react to reports and stories of children?

## Games

## 1. Materials:

Large rubber ball

#### 2. Instructions:

Have children play dodge ball where children are divided into two groups, half inside a circle of the other children. Children in circle eliminate children inside of circle by throwing ball at them.

### 3. Questions:

How does teacher modify game for children? How are explanations made? How are two groups chosen? How is competition dealt. with?

