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ABSTRACT

Teaching styles of five teacher trainees and one experienced teacher were observed. Teachers worked in pairs with groups of four to five disturbed preschool children. Six 10-minute observations of each teacher were made during the year by direct observation and video tape recording. Observe actions and verbalizations of teachers and children were coded. Concerning activity level of teachers, results showed intragroup consistency and great inter-group variability. Only one teacher showed a systematic change over time. Concerning amount of teacher attention to individual children, results showed teachers tend to give attention to disruptive children and to children whose homes they visit. Only the experienced teacher showed a dominant and enduring teaching style. (MS)

INFLUENCES ON TEACHING STYLE IN WORK WITH DISTURBED PRESCHOOLERS*

Miriam G. Lasher, Mathilda S. Holzman, Joanna Rotberg and Samuel J. Braun**

INTRODUCTION

In a pilot study previously reported[1] we presented a method for coding and analyzing the verbal and nonverbal classroom behavior of teachers in small therapeutic nursery school groups, in order to characterize different teaching styles. In that study we reviewed some of the literature on the analysis of teaching styles, but did not find an existing model that took into account the nonverbal aspects of teacher-child interaction which are particularly significant when one works with disturbed or very young children. Because we were engaged in training teachers to work with disturbed preschoolers, we were curious about the training process and wanted to clarify our goals. What do teachers of emotionally disturbed children do? What aspects of teaching behavior could a one-year training program reasonably expect to have influence upon?

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Did anything really "influence" the teaching style of an individual? How was a teacher affected by her co-workers and her supervisors? How much did the nature of the children being taught alter her behavior?

Our original coding method had proven capable of differentiating the styles of two teachers in four classroom observations. The current study involves refinements on the coding method, and an improvement in the collection of observation samples by the addition of video tape recordings. Using these procedures, we addressed ourselves to some of the questions just raised.

The subjects were five teacher trainees and one experienced teacher-staff member in the Tufts NIMH training program, "Preschool Teachers of Emotionally Disturbed Children". All were white middle class young women between 21 and 26 years of age. The setting was a child guidance clinic therapeutic preschool unit which was used as a practicum placement site for the training program. Groups of four or five disturbed preschoolers were placed together in classes which met two or three half days per week. The teachers were grouped into three teaching pairs, each of which was responsible for planning and executing an educational program for one group of children and also for regular home visiting to the children's families. There were two student trainee pairs and a third pair made up of a trainee working as assistant to an experienced supervising teacher. This made it possible to study the difference between a trainee's experience when she works with an experienced teacher as compared with two interns working together without an experienced head teacher in the classroom. In the supervising teacher-trainee pair the supervising teacher was responsible for decision making; her assistant often asked for and received guidance. By contrast, in the two intern pairs both members had to share and discuss the responsibility for decisions. Although the members of a pair were not always well-matched, they struggled to establish a working relationship with one another throughout the year. They were free to make "a heaven out of hell or a hell out of heaven."

Though the teachers were the subjects of this study they cannot be separated from

the children they taught. Table I presents the characteristics of the three teaching teams and the children in their groups.

Table I

CHARACTERISTICS OF TEACHING PAIRS AND CHILDREN'S GROUPS

	GROUP 1	
MISS BROWN - supervising teacher, member of training staff three years' experience teaching disturbed preschoolers MISS BLUE - trainee no teaching experience	CHILDREN: Bobby Joe Jamie Jim Harry	age 4-6 Problems: behavior problems, hyperactive, unmanageable, minimum brain damage, previous unsuccessful school experience, most intact group.
	GROUP 2	
MISS PEACH - trainee no teaching experience MISS GRAY - trainee only trainee with previous teaching experience	CHILDREN: Doris Greg Timmy Doreen	age 3-5 Problems: behavior problems, hyperactive, mildly retarded.

(Table 1 continued on next page)

Table 1

(Table 1 continued from preceding page)

GROUP 3

MISS BLACK - trainee no teaching experience MISS WHITE - trainee no teaching experience	CHILDREN: Allan Gene Sammy Paul Sarah	age 3-5 Problems: Allan, severely aggressive and unmanageable psychotic child, nonverbal. Gene, nonverbal psychotic child. others, hyperactive, behavior problems.

In general the children came from low-income families and tended to represent "drop-outs" from kindergarten and Head Start. Some of the children had proved too difficult for their families to manage at home. It was rare for the unit to have many psychotic children; during this year there were two. The setting to which these families came was a child guidance clinic with a strong commitment to community service. The typical pattern of intake, diagnostic study and psychotherapy was not followed. Children were placed in the preschool unit groups before an understanding of their behavior was complete. Classroom experiences and family visiting were utilized as the major means of understanding each child and formulating interventions. Psychological testing was not utilized routinely. Medical work-ups were begun as the child entered the group if they were not already completed. Drugs were utilized for hyperactivity.

The therapeutic goals for the children were stated in terms of four potential objectives for learning: 1) children need to learn that they have legitimate needs and that these needs can be legitimately met, 2) that they can have an effect on other people and materials, 3) that they can be reflective about their own feelings and behavior, 4) that they can elaborate their ideas and actions when they interact with others and with materials.[1] The interplay between a teacher, materials, or a group of children was viewed as a way to implement these goals with an individual child, i.e., setting the stage for the development of "competence." The teacher was thought to be catalytic to helping a child and parent develop a sense of competence.

METHODOLOGY

Observations. This study is based on the analysis of six ten-minute observations of each teacher made during a supervised free activity period spaced throughout the entire school year. The observer went to each classroom six times and made one observation of each teacher during each visit. Simultaneously a video tape recording was made. (One day's video taping proved defective and so there are 34 observations instead of the originally planned 36). The observer sat behind a one-way vision screen which allowed her to hear the natural sound from the classroom. The video camera operator* and the video recording equipment were in the classroom in full view of the children. The observer wrote down as much as possible of what the observed teacher said, focusing only on her verbalizations. Later she viewed the video tape and filled in missing words as well as all the visible details of the teacher's actions and those of the children she was dealing with. Repeated viewing of the tape produced a relatively complete verbatim transcript of the teacher's words and an accurate description of action. The coder worked from this material.

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* Peter Simmons and Roy Campanella, Jr.

Method of Analysis I: Teacher Coding. In analyzing the observation transcripts, primary attention was given to the observed teacher's actions and verbalizations and only these were coded.

Unitization. Teacher verbalizations were broken down into units for the purpose of analysis. These consisted of simple or complex sentences, phrases, or single words or names. Each action of the teacher was counted as a single basic unit. For example, "She sat down, put her arm around John and looked at Jane," would be continued as three units, each of which would be coded separately.

Categories. The units were categorized in the following manner:

1) Teacher's actions (Nonverbal)
2) Teacher's verbalizations (Verbal)
    a) to whom
    b) about whom
3) Degree of responsibility

Teacher's Actions. In this category are recorded all of the teacher's actions; example:

Teacher sits next to John

Teacher mixes paint

Teacher ties Anne's shoe

Teacher Verbalizations. The verbalizations of the teacher were broken down in two sub-categories.

A. To Whom the Teacher Talks. Under this heading is recorded the name or names of the child or children directly addressed. If more than two children are addressed the word "group" would be inserted, e.g., 'Let's all clean up now." Group would also be used when the teacher addresses a remark to no one in particular about a child within his hearing, e.g., "John is mad today."

B. About Whom the Teacher Talks. This category includes any person referred to by name or in the third person who occurs as the subject of the basic unit, other than the person or persons to whom the teacher is talking. For example if the teacher, when asking Jane, says, "The kids don't like it," "the kids" being the subject of the sentence would be coded as "group." Alternatively, if the teacher says to Jane, "John wants it," the name "John" would be recorded in the "about whom" column. If she said to Jane about John, "He had it first," the name "John" would again appear in the "about whom" column. At the same time, in all of the above cases, the name "Jane" would be inserted in the "to whom" column. Thus, any unit that can be coded in the "about whom" column receives a double coding in both verbal categories.

Degree of Responsibility. The degree of responsibility for a child's behavior, feelings, and thoughts assumed by the teacher in her actions and speech was categorized by means of a seven-point scale. The criteria used for the degree of responsibility scale were as follows:

0 The teacher assumes no responsibility for the child, e.g., teacher leaves the child in the middle of an interaction for no apparent reason. This category turned out to be so small that it was eliminated in the final analysis.

Nonverbal 1 The teacher contributes only her presence, e.g., approaching, watching, sitting with a child.

Verbal 2 The main burden of responsibility in the interaction remains with the child, e.g., asking for information, answering a child's question with "yes" or "no," or by supplying simple facts, brief responses in answer to a request initiated by the child, naming a child, exclamations.

Verbal 3 The teacher takes some initiative to introduce an idea or add some information which the child did not specifically request. The ideas supplied by the teacher are available to the child, but no particular response is asked of him, e.g., the teacher states her own ideas and feelings as in, "I don't like noise," statements of fact such as, "You went to the zoo," or "Hugh has a new shirt," compliments such as, "Good John, you did do that well."

Nonverbal 3 Providing and/or demonstrating materials such as getting some paint for a child or working with clay with him; physical contact with a child if it is not restraining or directive, such as when a teacher puts her hand on a child's head in passing.

Verbal 4 A particular response to the ideas or demands of the teacher is asked of the child, e.g., asking children to comply with her wishes. This involves all suggestions and demands requiring compliance by the child ranging from: "Let's move over here," "We are going to read," "Pick up the paper.please," "You have to come now," to "Stop doing that, John," and "No, no you can't have it," trying to get a child's attention verbally, as in, "Hey, John."

Nonverbal 4 Trying to make a child take something by holding it out to him or by catching his eye.

Nonverbal 5 The teacher intervenes to assume part or all of the responsibility for the nonverbal behavior the child has initiated or has failed to initiate, e.g., working on the same materials the child has already begun to use, such as working on his painting, or adding a block to his building, washing his hands, adjusting his clothes, physically directing or restraining his movements.

Verbal 6 The teacher makes assumptions about the child's motivations, wishes, or private thoughts which are obviously not directly observable, e.g., statements about a child's motives or feelings such as, "Bruce got excited," or "John is mad today," or "You wanted the puzzle that John has."

Both the teacher's actions and her verbalizations directed towards a child or children are coded for degree of responsibility. A verbalized unit receives two responsibility codings when it refers to two subjects doing different things, for example in a sentence such as the following which was spoken to Paul, "Paul is riding in the truck that Hugh wants." Both names, Paul and Hugh, would appear in the "about whom" column separated by a slash mark. The unit would receive a responsibility coding of 3/6. The three refers to Paul and the six to Hugh.

Method of Analysis II: Coding of Children's Disruptive Behavior. We also found it necessary to analyze the kind of child behavior that demands the teacher's attention. In order to do this we coded the actions and verbalizations of the children with whom the teacher was in contact at the time of the observation. The following coding categories were used:

1. Direct physical aggression towards another child or children.
2. Physical aggression towards a teacher. This includes physical attacks that are warded off by the teacher and those that fail to reach their mark.
3. Disruptive use of materials, e.g., dumping cornmeal on the floor, knowingly taking or playing with materials considered by the teacher to be inappropriate at the time, or those being used specifically by another child.

4. Playing so as to endanger oneself or others, such as climbing up the slide the wrong way when another child is about to come down.
5. Making noise which interferes with the ongoing activity in the classroom. This includes noise made by the child vocally or which his feet, as well as noise made by dropping something on purpose such as a board.

Each action or verbalization of a child was coded once. If, however, a child were to scream and stamp his feet at the same time, this would be termed one disruption and would receive one number five coding.

RESULTS

A. Activity Level of the Teachers Over Time. Table 2 shows the average number of units for each teacher in each ten minute observation over the year. There is intra-group consistency in this measure, that is, the two teachers who work together are closer to each other in average number of units than to any other teacher. At the same time there is great inter-group variability. The Group 3 teachers have the greatest average number of units, twice as many as the group having the lowest average. It can be seen in Table 2 that Group 1 and Group 2 teachers are very similar in the percentage breakdown of total average units into nonverbal and verbal units, while Group 3 teachers have a higher average percentage of verbal units.

In only one case, Miss White of Group 3, is there a systematic change over time in total units per observation. Miss White shows an average drop of 55 units for the last two observations compared with the first four. The other teacher in the group does not show this change. The behavior of both teachers in the group altered in the last two observations, which seems to reflect the removal from the group of the most severely disturbed and disruptive child in any of the groups.

Table 2

LEVEL OF TEACHER ACTIVITY

	Group	Average Number of Units	Range	Average % Nonverbal	Range	Average % Verbal	Range
Miss Brown	1	139.3	91-190	43.8	39-47	56.2	61-53
Miss Blue		123.8	98-197	41.1	23-49	58.9	77-51
Miss Peach	2	104.0	86-142	42.3	32-53	57.2	68-47
Miss Gray		94.2	51-126	40.7	29-62	59.3	71-38
Miss Black	3	205.0	184-226	38.3	31-44	61.7	69-56
Miss White		173.0	127-204	33.6	28-39	66.4	72-61

B. Amount of Teacher Attention to Individual Children. The figures in Table 3 show the average number of teacher units directed toward each child in each group for the sessions when the child was present. Looking at the average number of units for each teacher, first in Group 1, it can be seen that Miss Brown gives Joe well over twice as much attention as she gives Bobby, the second ranking child. The attention of

Miss Blue is more evenly divided among the children.

Table 3

Note that there is a division of responsibility for the children. Joe, whose rank is first for Miss Brown, is last for Miss Blue. Harry, whose rank is last for Miss Brown, is first for Miss Blue. The only child who has a low rank for both teachers is Jamie. One might wonder if he is being adequately attended to in this group.

In Table 4 it can be seen that the rank in attention given to various children by Miss Brown is almost perfectly correlated with the disruptiveness of the child. The division of responsibility in the group is such that Miss Brown, head teacher, takes the most responsibility for the most difficult children and Miss Blue, the assistant teacher, takes most responsibility for the least difficult children.

Table 4

For Group 2, there is perfect order in the rankings of the children for the two teachers. Thus, there is no division of responsibility between the teachers for the children, and very little attention is given to Doreen by either teacher (see Table 3). Again there is a correlation for both teachers between amount of attention and disruptive behavior of the children. The most disruptive child, Greg, gets the most attention and the least disruptive child, Doreen, gets minimal attention.

Table 3

AMOUNTS OF ATTENTION GIVEN TO EACH CHILD BY EACH OF THE CHILD'S TEACHERS

(Average number of units per session over the year for sessions when the child was present) *

		GROUP 1			GROUP 2			GROUP 3	
		Miss Brown	Miss Blue		Miss Peach	Miss Grey		Miss Black	Miss White
Jim	NV	10	14	Greg	49	37	Allan	41	27
	V	15	18		58	39		44	32
		25 (3)	32 (2)		107 (1)	76 (1)		85 (1)	59 (2)
Joe	NV	31	7	Doris	14	19	Peter	22	13
	V	41	7		23	33		34	21
		72 (1)	14 (5)		37 (2)	52 (2)		56 (2)	34 (3.5)
Jamie	NV	8	9	Timmy	14	14	Sammy	4	17
	V	6	8		13	22		9	17
		14 (4)	17 (4)		27 (3)	36 (3)		13 (5)	34 (3.5)
Harry	NV	1	13	Doreen	0	3	Gene	24	12
	V	3	21		2	1		18	10
		4 (5)	34 (1)		2 (4)	4 (4)		42 (3)	22 (5)
Bobby	NV	13	6				Sarah	7	39
	V	15	14					12	60
		28 (2)	20 (3)					19 (4)	99 (1)

* Numbers in parenthesis are the rank in amount of attention given the child by the teacher whose name appears at the head of the column.

Group 3 presents a mixture of the tendencies of the other two groups. The ranks in attention of Miss Black are more closely related to the disruptiveness of the children than those of Miss White. The division of responsibility resembles to some extent that in Group 1 with Miss Black distributing her attention, like Miss Brown, in terms of the disruptiveness of the children. She neglects Sammy in favor of Peter, but these children do not differ much in their disruptiveness.

On the basis of this analysis, it is clear that the actions of the children have a strong effect on the distribution of teacher attention. In the case of the head teacher-assistant team, the head teacher assumes responsibility for the most disruptive child and devotes the majority of her attention to him. In the student team groups, both teachers generally give their greatest attention to the most disruptive child in the group.

A second influence on the amount of attention given by the teachers to the children is whether or not a particular teacher is the one who visits the home of the child and works with the family. The asterisks in Table 4 indicate the families visited by a particular teacher. Having the highest or the lowest rank in attention received, is related to whether or not the teacher visits a child's home. With the exception of one teacher in Group 2, each of the children whose home is visited by the teacher has the highest rank in that teacher's attention, whereas none of the children whose homes are visited have the lowest rank for that teacher.

To summarize the results concerning total amount of teacher attention given to children, the most important variable is the disruptiveness of the children. A second variable is whether or not a teacher visits the home of that child.

Table 4

COMPARISON AMOUNT OF TEACHER ATTENTION AND CHILDREN'S DISRUPTIVE ACTS

	GROUP 1				GROUP 2			
	Rank in Attention Received		Rank in Amount of Disruption		Rank in Attention Received		Rank in Amount of Disruption	
	Miss Brown	Miss Blue	Ingroup	Overall	Miss Peach	Miss Gray	Ingroup	Overall
Joe	1*	5	1	3	Greg 1*	1	1	2
Bobby	2*	3	2	5	Doris 2	2*	3	10
Jim	3	2*	3.5	11.5	Timmy 3	3*	2	4
Jamie	4	4*	3.5	11.5	Doreen 4*	4	4	14
Harry	5	1*	5	13				

	GROUP 3			
	Rank in Attention Received		Rank in Amount of Disruption	
	Miss Black	Miss White	Ingroup	Overall
Allan	1*	2	1	1
Peter	2	3.5	4.5	8.5
Gene	3*	5	3	7
Sarah	4	1*	4.5	8.5
Sammy	5	3.5*	2	6

(The asterisks indicate that the teacher whose name appears at the head of the column is responsible for visiting the family).

Table 5

RANK ORDERING OF CATEGORIES OF DEGREE OF RESPONSIBILITY FOR INDIVIDUAL CHILDREN

GROUP 1

	Miss Brown					Miss Blue				
	Jim	Joe	Jamie	Bobby	Harry	Jim	Joe	Jamie	Bobby	Harry
NV 1	1	1	1	5	1	1	1	4	3	1
V 2	3	3	3	1	3	2	2	3	1	2
NV 3	6	5	4	4	4	6	7	2	2	5
V 3	2	2	2	2	7	3	3	1	4	3
NV 4	8	7	7.5	7.5	7	8	8	7.5	7.5	7.5
V 4	5	6	6	6	5	5	5	6	5.5	4
5	4	4	5	3	7	4	4	5	5.5	6
6	7	8	7.5	7.5	2	7	6	7.5	7.5	7.5
Style Symbol	A	A	A	B	C	A	A	B	D	A
Rank Attention	3	1	4	2	5	1.5	5	3	4	1.5

(Table 5 continued on next page)

(Table 5 Continued)

GROUP 2

Miss Peach

	Timmy	Doreen	Greg	Doris
NV 1	1	5.5	2	2
V 2	4	2	4	3
NV 3	5	5.5	3	4
V 3	3	1	1	1
NV 4	7.5	5.5	8	5
V 4	2	5.5	6	6
NV 5	6	5.5	5	7
V 6	7.5	5.5	7	8
Style Symbol	H	G	F	E
Rank Attention	3	4	1	2

Miss Gray

	Timmy	Doreen	Greg	Doris
NV 1	2	1	1	1
V 2	1	6	2	3
3	7	3	6	2
3	3	2	3	4
4	7	6	8	7
4	5	6	5	5
5	4	6	4	6
6	7	6	7	8
Style Symbol	A	L	A	M
Rank Attention	3	4	1	2

(Table 5 Continued on next page)

(Table 5 continued)

GROUP 3

	Miss Black					Miss White					
	Allan	Gene	Sammy	Peter	Sarah		Allan	Gene	Sammy	Peter	Sarah
NV 1	4	3.5	1	6	1	NV 1	3	1	6	4	6
V 2	5	2	3	2	2	V 2	4	4	2	1	4
NV 3	6	6	5	1	6	3	6	3	5	5	2
V 3	3	5	2	4	4	3	5	5	3	6	5
NV 4	8	7	7.5	7	7.5	4	7	7	8	8	7
V 4	2	3.5	6	5	5	4	1	2	4	2	3
NV 5	1	1	4	3	3	5	2	6	1	3	1
V 6	7	8	7.5	8	7.5	6	8	8	7	7	8
Style Symbols	O	S	P	Q	P	Style Symbols	O	R	S	T	Q
Rank Attention	1	2.5	5	2.5	4	Rank Attention	2	5	3.5	1.5	1

C. Teacher Style in Terms of Responsibility Codings with Respect to Individual Children. The style of the teacher with respect to the individual child is not a completely free variable. To a great extent the amount of responsibility for the child assumed by the teacher in her interaction with him depends on the character of his behavior. The hyperactive, disruptive child will require a greater degree of directiveness from the teacher in a classroom situation than another child whose behavior is not disturbing to the other children or destructive to the teacher's program for the group. However, even though teacher style is not entirely a reflection of the teacher's philosophy, goals, and personality these factors are also operative and important in determining teacher style. The analysis of style with respect to individual children permits us, at least partially, to separate the components of style which depend on the child from the enduring predispositions of the teacher. We have already noted that there is significant variability in the amounts of attention given the children related to their disruptiveness. Is there also significant variability in the kinds of attention given? We have measured variability in terms of the degree of responsibility scale, distinguishing verbal and nonverbal responses for levels 3 and 4, the only two scale values which can be either verbal or nonverbal. To facilitate comparison, results are presented in terms of rankings. Separating verbal and nonverbal responses on scale values 3 and 4 gives a ranking system of eight instead of six.

Table 5

In Table 5, looking first at the styles of teachers in Group 1, we see that Miss Brown displays three different styles designated A, B, C, with the five children of the group. (For purposes of this analysis, styles are considered similar if there

is no difference in rank which exceeds two points). She displays the same style with Joe, Jim, and Jamie. This is not related to the amount of attention she gives the children since their ranks in amount of attention are respectively 1, 3, and 4. It is not related to the disruptiveness of the children either. Joe is the third most disruptive of all the children in the three groups, while Jim and Jamie are among the least disruptive in the three groups. Miss Brown's three highest ranks on the responsibility scale for this style (in order) are 1- lending her presence watching, verbal 3 - stating her own ideas, verbal 2 - verbally responding to a child. Her lowest two ranks are nonverbal 4 - actions which require a response from the child, and 6 - inferential statements about the child's needs, wishes, feelings, etc..

Miss Blue, the assistant teacher in Group 1, also displays three styles with the children to be designated as A, B, D. Notice that two styles, A and B, are identical with two of Miss Brown's styles. Style A, which Miss Brown used with three children is also used by Miss Blue with three children. This pair of teachers, a head teacher and an assistant, display a consistency which suggests that style A is the relatively enduring style of the head teacher as well as the true style of the assistant. Or is the trainee-assistant adapting herself to the philosophy of the head teacher?

Turning now to the teachers of Group 2, a student team, we find substantially less consistency in style for each teacher and no overlap in style between the teachers. Miss Peach has a different style with each of the four children in the group. Miss Gray has three styles for the four children. Her style A with Timmy and Greg, the most difficult children in the group, is the same as the dominant style in the first group. It is worth noting that Miss Gray is the only trainee of the five who has taught previous to this year.

The situation with Group 3, another student team, resembles that of Group 2 in that there is no dominant style. However, there is slightly more consistency of style since there are two overlaps, O and S.

The teachers of Group 3 differ from those of Groups 1 and 2 in a systematic way by being more directive in their styles. For both teachers NV 5, physically restraining children, is one of the three highest categories with four of the five children (not the identical four). For Miss White Verbal 4, verbalization of the teacher requiring response from the child, is also one of the three highest ranking categories with four of the five children.

However, over time there was a substantial decrease in the directiveness of both teachers of Group 3, especially marked in the case of Miss Black between observations 4 and 5. The change is coincident with the removal from the group of Allan, by far the most disruptive and directly aggressive child in any of the groups. In part the directiveness of the styles of these teachers appears to be a reflection of Allan's disruptiveness. For both teachers Nonverbal 5, physically restraining the child, and Nonverbal 4, verbalizations of the teacher which require a response from the child, are the two highest ranking categories with Allan. It might be assumed that this was the result of Allan's behavior. But recall that for both teachers, 5 is one of the three highest categories for four of the five children and that Miss White has Verbal 4 as one of her three highest categories with four of the five children.

For both of the student teams there is no evidence of an enduring or preferred style with the possible exception of Miss Gray, who had previous teaching experience. However, this is difficult to intrepret since Group 1, where a dominant style exists, has a head teacher and an assistant, but it is also composed of older and less disturbed children than the groups taught by student teams. The totals of children's attention demanding behavior can be used as a rough measure of the relative difficulty of the groups (see Table 6).

Table 6

Table 6

INDEX OF CHILDREN'S DISRUPTIVE ACTS BY GROUPS

GROUP	INDEX OF DISRUPTIVE ACTS
1 - head teacher and assistant	43
2 - student team	45
3 - student team	54

To summarize our results, there is clearcut evidence for a dominant and enduring style only in the case of Miss Brown. The same style is the dominant one displayed by her assistant. Miss Gray of Group 2, the only trainee with previous teaching experience, also displays this style with two of the four children in her group. Thus, we have some slight evidence that style A represents a prototype.

The evidence from the three remaining teachers suggests that they are 1) probably not yet experienced enough each to have developed an enduring style; and 2) the disruptiveness of the children in their groups influences the degree of responsibility of their actions and verbalizations to a great extent. But the data we have will not answer the important question as to whether each would have displayed a dominant style had she taught a more intact and older group of children. Would her behavior then have been more a function of her philosophy and goals and less a function of the children's behavior?

DISCUSSION

In the introduction we raised the following questions to put to our data:

1) Upon what could a one-year training program reasonably expect to have influence?
2) Did anything really "influence" the teaching style of an individual?
3) How much was a teacher affected by her co-workers and supervisors?
4) How much did the nature of the children being taught alter her behavior?

Our results are most clearcut in response to question 4. The most disruptive children receive the most attention from the teacher and the least disruptive children receive the least attention. There are important implications in this for us as supervisors and trainers of teachers. It does not appear consistent with principles of behavior modification for such a correlation to persist, and yet it does, even for the experienced supervising teacher. Nonetheless, it must be pointed out that a child can be held in a way that does not reinforce his behavior. A supervisor can certainly use observation data coded in this way to sharpen a trainee's perception of how she uses herself in the classroom and to monitor her efforts to change.

Even though <u>amount</u> of attention and disruptiveness are closely correlated, teacher <u>style</u> is less closely related to the disruptiveness of the children. Our results suggest that the style of the more experienced teachers is less affected by disruptiveness than that of the less experienced teachers. At the same time it appears possible that a child who is as disruptive as Allan puts demands on the teachers of such continuous intensity as to profoundly color the teacher's style with the entire group. Perhaps a child like Allan should not even be in a therapeutic nursery group, but certainly he presents an unrealistic challenge to two trainees who have not taught before. Our results suggest to us the possibility that trainees should first have an experience with a relatively intact group. This might give them a better opportunity to begin developing an enduring style before facing a very dis-

ruptive group of children. However, we do not mean to imply that psychotic children should not ever be in therapeutic groups, nor that teacher trainees should not work with them.

We have little evidence bearing on question 3, the influence on a teacher of co-workers and supervisors. However, the activity levels (Table 2) of the teachers do suggest some influence of co-workers. The activity level of each teacher is closer to her co-worker than to any other teacher. This is not entirely a function of the difficulty of the group because Miss Brown and Miss Blue, with the least difficult children, have the second highest activity level. In addition there is some evidence of influence of co-workers on style overlap in Group 1 and Group 3. In Group 1 the head teacher and assistant teacher have the same dominant style. In Group 3 there are two overlaps in style, but since Allan's disruptiveness probably determines the extremely directive styles of both teachers with him, we must conclude that the evidence for influence of co-workers is not very strong except for Group 1. From our current data we might speculate that an assistant teacher will be affected to a greater extent by a head teacher than members of student teams will be affected by each other. However, trainers with a particular bias would then have to raise the question as to how a trainee best learns about teaching. Does an assistant teacher, if she seeks guidance from an experienced teacher, and absorbs her style, learn as much as a trainee who struggles to evolve her own style and fully assumes much of the responsibility for her decisions? Only a follow-up study of these trainees when they are later employed and on their own as teachers would help to answer this question.

It is interesting to look at the differences in Miss Brown's style of 1968-1969 when compared with her style of 1966-1967.[1] (This comparison does not take into account the differences in the two groups of children). If we combine Nonverbal 3 and Verbal 3, Nonverbal 4 and Verbal 4, we can compare Miss Brown's style in the two periods.

Table 7

COMPARISON OF MISS BROWN'S STYLE OVER TIME

Directiveness Category	1968-69 %	1968-69 Rank	1966-67 %	1966-67 Rank
1	20	(3)	14	(3)
2	23	(2)	8	(5)
3	31	(1)	52	(1)
4	9	(5)	16	(2)
5	12	(4)	0	(6)
6	1	(6)	10	(4)

In 1968-69 she is slightly less directive than she was in 1966-67. The total of 4 + 5 + 6 drops from 26% to 22%. She is considerably less talkative. Her total of 2 + 3 + 4 + 6 (all primarily verbal) drops from 86% to 64% even though category 2, verbally responding to children increases from 8% to 23%. She had set a goal for herself to talk less. Some of the changes noted are the result of a conscious effort on Miss Brown's part to change. Although this was not the result of supervision (i.e., two people talking to each other) it was similar (i.e., Miss Brown talked to herself). It suggests that objective data about teaching can play an important role in the continuing education of a teacher.

The answer to question 2 is really contained in the answers to questions 3 and 4. The nature of the children's behavior influences teaching style, and so does the

experience of being an assistant to an experienced head teacher.

Our answer to question 1, (what could a one-year training program expect to influence?) is tentative and impressionistic. It depends not only on the results from our observations but also upon our more general experience in training and supervising these teachers and the previous trainees in the program. We are dubious about the effect of a one-year training program on the teaching style of individuals. Our impression is that teaching style and the development of teaching competence are determined primarily by the interplay of the teacher's personality and all of her experiences, including the characteristics of the children she teaches.

Our training program addressed itself less to a discussion of content and teaching and more to the relationship between self, content and teaching. The data does not support the the fact that attention paid to "self" in the program was noticeable in changes in teaching style. However, compared to other groups of trainees, this group had the least experience in teaching and also came to us less defined about their "selves." It was not until the summer semester at the end of the program that some of these trainees resolved questions about aspects of themselves, their teaching, and the assumption of a teaching role.

The selection of trainees takes on a critical importance in any training program. Though certain experiences during a training year may be catalytic to the development of style and teaching competence, one does not "train" a teacher. At best a program offers a variety of experiences to a teacher-in-training in order to foster her own development, and a staff that can maintain an interest in the struggles that a teacher-in-training undergoes.

REFERENCES

1. BRAUN, S., HOLZMAN, M., LASHER, M. 1969. Teachers of disturbed preschool children: an analysis of teaching styles. American J. Orthopsychiat. 39:4, 609-618.