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ABSTRACT

As part of Head Start's Planned Variation program, the Demonstration and Research Center for Early Education (DARCEE) preschool model was chosen to be implemented in six Nashville Head Start centers. This study compared two forms of DARCEE training for teachers and teacher aides--the Elaborated Treatment and Abbreviated Treatment--and compared both treatment groups with a group receiving no training--the Distal Comparison Group. The Abbreviated Treatment consisted of 6-week summer workshop and several short followup workshops; the Elaborated Treatment included the same workshops plus individual classroom visits by project staff. The workshops covered teaching procedures, activities, materials, and classroom management, with particular emphasis on planning and determining objectives. Teachers in all three groups are pre- and posttested, using tests for attitude, vocabulary and concepts developed specifically for the project. Children were tested for IQ, perceptual motor coordination, and auditory discrimination, using standardized tests. Results indicated no significant differences between teachers in any of the three groups. However, children in the Distal Comparison Group did significantly better on all tests than those in either of the treatment groups. (Appendixes contain data tables, schedules and weekly curriculum plans of treatment centers and observation reports of comparison centers.) (RT)

DARCEE

DEMONSTRATION AND RESEARCH CENTER FOR EARLY EDUCATION

DISSEMINATION OF THE DARCEE MODEL TO HEAD START: RESULTS OF A TRAINING PROGRAM FOR HEAD START TEACHERS AND TEACHER AIDES

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Introduction

The "Westinghouse Report" (Circirelli, Evans & Schiller, 1969) described the results of a recent survey undertaken to assess the overall, long range effectiveness of Head Start. This report concluded that short summer programs resulted in no significant gains on cognitive and affective measures and that full year programs were only marginally effective over time. Unfortunately, this particular study was hampered by severe statistical (Madow, 1969; Campbell & Erlebacher, 1970) and experimental design (Smith & Bissell, 1970) problems. Nevertheless, these findings were not surprising in view of the unevenness in the quality of Head Start programs in this country. A few Head Start programs have reported encouraging results (Chesteen, 1966; Eisenberg, 1966; Hodes, 1966), but others, many not reported in the literature, have been ineffective.

The work reported herein was performed under Grant CG-9934-A from the Office of Economic Opportunity, through Project Head Start.

Recently Project Head Start instituted the Planned Variation program in an effort to investigate ways of upgrading the quality of Head Start. Under the auspices of Planned Variation, several preschool model developers were selected to explore the feasibility of disseminating their preschool models in a limited number of Head Start classrooms. The Demonstration and Research Center for Early Education (DARCEE) in Nashville, Tennessee was among those programs chosen.

The DARCEE model for preschool education has been in the process of development since 1965. The roots of the model actually go back even farther (Gray, Klaus, Miller, & Forrester, 1966). The DARCEE model includes components for curriculum development, classroom management, parent training, and staff development.

Attempts at disseminating the DARCEE model have been underway since 1966. The most frequently used model of dissemination has been the teacher training institute in which an attempt is made to train teachers and teacher aides to employ the teaching procedures, activities, and materials developed by the DARCEE staff. The duration of these institutes ranged from one to ten weeks.

Rubow (1968) reported the results of a DARCEE research and training project in several Child Development Centers in Mississippi. In this particular study 32 teacher aides were divided into four groups. One group was trained by means of lectures, discussions and audio-visual aides. In the second group the trainer actually participated in the classroom by observing and doing some demonstration teaching. This participation was followed by an evaluation of the day's activities and planning for the next day. A third group of teacher aides was exposed to a combination of the first two methods, while the last group received no training and served for

comparison purposes. The training lasted for twelve weeks. The results failed to distinguish between treatments, but indicated that the three groups of teacher aides receiving treatment showed a greater amount of verbal positive reinforcement while teaching, knew more about child development and preschool curriculum, and had a higher level of self esteem than the teacher aides in the comparison group.

Recently DARCEE employed an eight-week institute to train an entire teaching staff to participate in a research project (Miller, Dyer, & Driscoll, 1969). This project, conducted at the University of Louisville, was designed to contrast the effects of four different preschool programs. The Bereiter-Engelmann, Montessori and DARCEE models and a so called Traditional model were compared. Preliminary data analyses indicated that children attending classrooms in which the DARCEE and the Bereiter-Engelmann models were employed scored significantly higher on tests of perceptual skills, cognitive development, and motivation than children attending the Traditional program and the Control group children. No measures on the teachers or teacher aides were reported.

In view of these positive findings, the next logical step in the utilization of the model was to disseminate the DARCEE model within a research plan designed to explore other aspects of the dissemination process. The present study was designed in the interest of cost saving and in view of the scarcity of knowledge about how to disseminate preschool models effectively to Head Start classrooms. The purpose of this study was to investigate the effects on teachers and children of two different methods of dissemination which varied in terms of intensity and expense. Both methods focused on the training of teachers and teacher aides and the modification

of the classroom environment. Teachers and teacher aides in the Elaborated Treatment groups attended training workshops and were also exposed to training in their own classrooms. Teachers and teacher aides in the Abbreviated Treatment group attended only the training workshops.

Hypotheses

Hypothesis 1	Teachers and teacher aides in the Elaborated Treatment group will score higher than teachers and teacher aides in the Abbreviated Treatment and Distal Comparison groups on the subtests of the DARCEE Teacher Attitude Scale, the DARCEE Teacher Vocabulary Test and the DARCEE Basic Concept Test.
Hypothesis 2	Teachers and teacher aides in the Abbreviated Treatment group will score higher than teachers and teacher aides in the Distal Comparison group on the subtests of the DARCEE Teacher Attitude Scale, the DARCEE Teacher Vocabulary Test and the DARCEE Basic Concept Test.
Hypothesis 3	Scores of the teachers and teacher aides in the Elaborated and Abbreviated Treatment groups will reflect a gain from pretest to posttest on the DARCEE Teacher Attitude Scale, the DARCEE Teacher Vocabulary Test and the DARCEE Basic Concept Test.
Hypothesis 4	Children in the Elaborated Treatment group will score higher than children in the Abbreviated Treatment and Distal Comparison groups on the Stanford Binet, Visual Motor Integration Test and the Goldmann, Woodcock & Fristoe Test of Auditory Discrimination.

Hypothesis 5 — Children in the Abbreviated Treatment group will score higher than children in the Distal Comparison group on the Stanford Binet, Visual Motor Integration Test and Goldmann, Woodcock & Fristoe Test of Auditory Discrimination.

Hypothesis 6 — Scores of Elaborated, Abbreviated and Distal Comparison group children on the Stanford Binet, Visual Motor Integration Test and Goldmann, Woodcock & Fristoe Test of Auditory Discrimination will reflect an increase from pretest to posttest.

Methodology

Subjects

Teachers and teacher aides from all six of Nashville's Head Start Centers participated in the present study. These Centers were randomly assigned to either the Elaborated Treatment group or the Abbreviated Treatment group. This assignment procedure resulted in the placement of eight classrooms in the Elaborated group and six classrooms in the Abbreviated group. After the first training phase and before anyone was tested, it was decided that the size of the DARCEE training staff would not permit effective delivery of the Elaborated treatment in eight classrooms. At that time the groups were switched and the six Abbreviated classrooms became the Elaborated Treatment group, and the eight Elaborated Centers became the Abbreviated Treatment group. Table I presents a summary of the characteristics of the present sample.

Table I

Characteristics of Children, Teachers and Teacher Aides

Center	Teacher-Pupil Ratio	Children		Teachers		Teacher Aides	
		CA	IQ	CA	IQ	CA	IQ
Elaborated	1:10	5-2	89.64	36	98.17	41	72.60
Abbreviated	1:10	5-3	93.24	35	100.75	37	87.75
Comparison	1:7.5	4-10	95.33	32	89.33	31	82.10

There was a total of six classrooms with approximately 20 children in each of the three Elaborated Centers. There were six teachers and six teacher aides, and the teacher-pupil ratio was 1:10. All of the teachers and five teacher aides were available for the pre and posttesting.

Twenty-eight children were selected and tested as representatives of the Elaborated Treatment group. Selection of these children was done on a stratified random basis with each classroom serving as a stratifying variable. Twenty-five of this initial sample were available for posttesting. Prior to intervention the mean chronological age of this group was 5-2 with a range of 3-10 to 5-11. There were 14 boys and 11 girls.

Six teachers and five teacher aides were available for posttesting. The mean chronological age of the teachers was 36 years, and the mean IQ, as measured by the Lorge Thorndike (Form A), was 98.17. The average age of the teacher aides was 41 years, and the mean IQ of the group was 72.60.

The three Abbreviated Centers contained eight classrooms. The staff was comprised of eight teachers and eight teacher aides, and the teacher-pupil ratio was 1:10. All of the teachers and teacher aides were available for pre and posttesting.

Twenty-eight children were selected and tested to represent the Abbreviated Treatment group. Selection in this group was done in the same manner as in the Elaborated Treatment group. Twenty-five children were available for posttesting. Initially, the mean chronological age for this group was 5-3 with a range of 4-0 to 5-11. There were 11 boys and 14 girls.

Eight teachers and the same number of teacher aides were available for posttesting. The mean chronological age of the teachers was 35 years and of the

teacher aides was 37 years. The mean IQ of the teachers was 100.75, and 87.75 was the mean IQ of the teacher aides.

Three Head Start Centers were randomly selected from the nine operating in metropolitan Memphis, Tennessee. These Centers served for comparison purposes. The teachers, teacher aides, and children drawn from these Centers comprised the Distal Comparison group. There was a total of three classrooms in the three Centers. There were 30 children in each class. The teacher-pupil ratio was 1:7.5 with six teachers and six teacher aides staffing the three classrooms. All of the teachers and five of the teacher aides were available for pre and posttesting.

Twenty-six children were selected to represent these Centers. Again, selection was done on a stratified random basis with each classroom serving as a stratifying variable.

Twenty-one children in the Distal Comparison group were available for post-testing. At the outset of this study the mean chronological age of this group was 4-10 with a range of 3-1 to 5-11. There were seven boys and 14 girls.

The average age of the six teachers in the Distal Comparison group was 32 years, and the mean IQ of the group was 89.33. The average age of the five teacher aides was 31 years; the mean iQ was 82.10.

Treatments

The present study was designed to investigate the feasibility of disseminating the preschool program developed at DARCEE to Head Start classrooms. This aim was not only an attempt to train teachers and teacher aides to use DARCEE's procedures and materials, but also included a commitment on the part of the training staff to

adapt the DARCEE program to the conditions and circumstances that existed in the local Head Start Centers.

A secondary purpose of this study was to provide an indepth field experience for several graduate students who were working toward Master of Arts degrees in education.

The treatment was comprised of several components. Prior to beginning the intervention project, the DARCEE Preschool Program was thoroughly analyzed. Essential characteristics of the Program were isolated, and then clarified and defined. Finally, the functional relationships between these characteristics were specified in detail. The result of this planning effort was the enumeration of 11 program defining features. These features served not only to define the DARCEE Preschool Program, but also served as targets for modification in the training program that was to follow.

Briefly these 11 features included:

1. Educability - The overall aim of the DARCEE Program is to enhance the educability of the young child. Educability refers to the aptitudes and attitudes which are necessary for learning and school success.

2. Teacher Directed - The DARCEE program is not child-centered in the sense that the children freely select activities. The teachers and teacher aides plan activities on the basis of their evaluation of the children's

abilities. Free choice activity periods are introduced in a limited way toward the second half of the year when the children are mature and experienced enough to use this time advantageously.

3. Grouping - Children work in large and small groups. Large group is comprised of all of the children in the class. Small groups have approximately five children and one teacher. Children are grouped and regrouped homogenously on the basis of specific aptitude and attitude criteria.

4. Role of Teacher Aide - All adults fulfill teaching roles. Teacher aides are responsible for planning, implementing, and evaluating small group activities.

5. PIE Cycle - The teaching process includes planning, activity implementation, and evaluation. Sufficient time is provided each day for the planning of new activities and the evaluation of activities just completed.

6. Organization - The classroom is highly organized in terms of its spatial and temporal aspects. The year begins with an empty classroom devoid of stimuli which might distract child's attention from teacher. Physical additions are made gradually as they become meaningful to the child. Meals, snacks, toileting,

outdoor play, small group and large group activities are scheduled consistently throughout the day and week. Temporal and spatial concepts are also extended into curriculum.

7. Basic Skill Development - The curriculum provides for the development of basic perceptual, conceptual and language skills that are important in "learning to learn."

8. Attitude Development - Classroom activities provide for identification with achieving role models, the development of positive self esteem, ability to delay gratification, persistence, independence, the desire to achieve and interest in school-type activities.

9. Instructional Units - The basic skill and attitude development programs are incorporated into instructional units. An instructional unit is a detailed outline of concepts and understandings organized around a central theme. It serves to integrate and order learning skills, attitudes and curriculum content.

10. Reinforcement - Teachers and teacher aides verbally and physically reinforce children for desired behavior and withhold reinforcement for undesired behavior. Reinforcement gradually progresses from being immediate, concrete and physical to being postponed, symbolic and social.

Reinforcement procedures are used to help children successfully approximate basic skill, attitude and other behavioral goals.

II. Parent Involvement - Parents are meaningfully included in the effort to enhance the educability of the child. Parent participation includes working in the classroom, being trained to be an effective educational change agent at home, and participating in various parent-teacher organizations.

The training of teachers and teacher aides in this project was comprised of three distinct phases. The first phase of the training involved a six-week summer workshop which began in July, 1969. Teachers from the local Head Start Centers attended these workshops for five weeks. The workshops ran approximately six hours a day and five days a week. The purpose of the summer workshop was to acquaint the teachers with the DARCEE program with a specific focus on its underlying philosophy and its essential ingredients. Teaching procedures, activities and materials were discussed and demonstrated under the headings of perceptual skill, concept and language development. A week was spent on the topic of classroom management. The workshop concluded with the distribution of a unit which the participants helped devise. Next, the teacher aides attended a one-week workshop. During this week the teacher aides were exposed to the DARCEE program. A particular emphasis was placed upon the teaching aspects of the teacher aide role.

The training procedures used in the summer workshop included participation in the DARCEE classroom, lectures, slide presentations, small group discussions, materials

construction and demonstration, modeling of appropriate teaching behaviors by the training staff and role playing of a variety of classroom situations. Each session ended with an evaluation of the day's activities and planning for the next day.

The second training phase began in mid-September, 1969. This phase included three parts. The first was a continuation of the summer workshop. The workshops were held one half day a week from the middle of September to the last week in May. The format of these workshops was basically the same as for those held during the summer months, but the focus was more detailed and specific. Time was devoted to the development of activities which promote basic perceptual skills, elementary concepts and language, to scheduling and block planning, to unit construction, to the training and utilization of teacher aides and voluntary personnel, etc. Teachers attended 19 of these half day workshops and teacher aides attended three. The next part of the second training phase involved members of the DARCEE staff visiting the Head Start classrooms. An experienced staff member was assigned to visit each Center. The visits usually occurred twice weekly. The purpose of these visits was to supplement the workshop activities by giving the staff an opportunity to observe the extent to which the workshop experience was influencing classroom practices, to enable the staff member to model desired teaching behaviors or the use of a particular material or activity in a real life situation, and to provide input for future workshop sessions. Initially the visiting staff member only observed and made few comments. More active participation was postponed until the teacher felt comfortable with the staff member present and elicited more participation, and only after the staff member felt knowledgeable enough about a particular classroom

and teacher or teacher aide to make a useful and relevant contribution. The last part of the second training phase involved graduate students. During the period of mid September to mid January, four graduate students were trained to help implement the DARCEE program in the local Head Start Centers. This training included seminars on the theoretical aspects of child development, educational psychology and early education, and indepth seminars on the essential features of the DARCEE program with an emphasis on training others to employ the program. Each student also served for one month as a small group teacher in one of DARCEE's demonstration classrooms. Toward the end of this period the students began to accompany the staff members to observe in the Head Start classrooms.

The third training phase began in February, 1970 and lasted until the end of May, 1970. This phase was marked by the active participation of the graduate students in the Head Start classrooms. Each student was paired with a staff member. This team was assigned to a Head Start classroom. At first, the student and staff member worked together, first with the teacher and then with the teacher aide. After the student developed some facility for observation, behavior modeling, planning and evaluation, the team split. The staff member worked with the teacher, and the student worked with the teacher aide. Many training procedures were used in the Head Start classrooms, but the most popular involved the Head Start teacher or teacher aide observing and evaluating an activity carried out by the student or staff member. Then the roles were reversed, and the student or staff member would observe and evaluate.

Research Design

The present study was designed to explore different ways of disseminating the DARCEE program. In order to do this, the six Nashville Head Start Centers were assigned randomly to either the Elaborated Treatment group or the Abbreviated Treatment group. These Treatments differed in only one respect. The Elaborated Treatment group participated in the summer workshops, the half day workshops, and were observed and trained in the field by the staff and students. The Abbreviated Treatment group participated in the summer workshops, and the half day workshops, but were not exposed to any field contact by staff or students. As a result the Elaborated Treatment was more extensive and thus more expensive to implement than the Abbreviated Treatment.

The strategy for the present study was to contrast the effects on teachers and representative groups of children of two treatments which varied in terms of intensity and expense. A further contrast between the groups receiving training and the Distal Comparison group, which was comprised of teachers and children who were not exposed to the DARCEE intervention, was also designed into this study. Teachers and teacher aides in the Distal Comparison group did participate in periodic training sessions which were organized and implemented by the Head Start regional training officer. As a result, this study did not compare the results of training versus no training, but compared the results of training experiences which differed in terms of content and intensity.

Instrumentation and Data Gathering

Pretest and posttest data were gathered on teachers, teacher aides and representative groups of children in the Elaborated, Abbreviated and Distal Comparison groups.

Teachers and teacher aides were given three tests which were developed at DARCEE to measure attitudes, vocabulary and concepts that are employed in the DARCEE program. The Teacher Attitude Inventory is comprised of five subtests:

Subtest I - Task Orientation

Items are based on the idea that it is important to achieve high levels of competence as a teacher. Such attitudes might be: a person will be a successful teacher if he works hard, persists long and is patient; he will succeed if he plans carefully, structuring and sequencing the curriculum with foresight; education is worth the effort, etc.

Subtest II - Value of Interpersonal Warmth

Items are based on the idea that high levels of interpersonal warmth among people is valuable and possible, both personally and professionally. Such attitudes might be: people are trustworthy; I like children; to know a person deeply is to like him; it's good to be with friends; it is enjoyable to be nice to people, etc.

Subtest III - Feeling of Social Adequacy

Items relate to attitudes of confidence in one's own social adequacy. Such attitudes might be: I am liked by children and adults; I am good looking enough; people respect my opinions; people think I am a good friend, etc.

Subtest IV - Self Confidence in Teaching

Items relate to attitudes of confidence in one's own teaching ability. Such attitudes might be: I am a good teacher; as a teacher I can make progress; I can be depended upon at the center; I do better with children each day, etc.

Subtest V - Interest in Teaching

Items relate to the interest and enjoyment derived from teaching. Such attitudes might be: I have fun teaching; teaching provides me a wonderful challenge, there is always something new and enjoyable to learn, etc.

The DARCEE Teacher Vocabulary Test is comprised of three subtests:

Subtest I - Planning and Organization

Items relate to vocabulary words that describe the organization and preparation of activities performed in the Center. These activities do not involve instructional behaviors per se. Rather they support the learning-teaching function of the center. Such words might be: planning, transition, unit, small group, objectives, materials, evaluation, staff role, room arrangement, etc.

Subtest II - Reinforcement and Classroom Management

Items relate to vocabulary words that describe teacher-child interaction during instructional periods. Such words might be stimulation, setting standards, praise, punish, reinforcement, constructive criticism, control, motivation, etc.

Subtest III - Cognitive and Motivational Development

Items relate to vocabulary words that describe the behavior and development of children. These are not words about teaching per se; they do, however, form the basis for theories of change, hence for schooling. These words could be about the process of child development as well as the behavioral characteristics the child exhibits. Such words might be skills, learning, sensory experience, persistence, delay of gratification, environment, socialization, internal motivation, language, perception, etc.

The DARCEE Basic Concept Test is comprised of five subtests:

Subtest I - Teacher-Child Interaction and Reinforcement

Items relate to the understanding of concepts pertaining to interaction between teachers and children. These concepts concern the methods teachers use in different instructional situations; they form her theory of how and why she should treat children as she does. Such concepts might be to administer immediate reinforcement, that material rewards are more effective in instructing disadvantaged children than middle class children; that punishment is not effective in extinguishing response tendencies, only in inhibiting them.

Subtest II - Principles of Classroom Learning

Items relate to the understanding of concepts pertaining to the general behavior and development of children. These concepts are not about instruction nor about the disadvantaged child per se. Rather they are about the "average" child, how he develops and how he behaves. Such concepts might be: learning is easier for the child who has the needed background experiences; if a child is interested he will learn more; children need to learn how to persist at tasks.

Subtest III - Behavior and Development of Children from Low Income Homes

Items relate to the understanding of concepts pertaining to the behavior and development of children from deprived environments. These concepts are not about instruction nor about middle class children per se. Rather they are about the disadvantaged child, how he develops and how he behaves. Such concepts might be: the disadvantaged child receives less reinforcement from adults than does the middle class child; he receives more punishment; the reasons for what happens to him are less clear; he is less interested in school type activities.

Subtest IV - Individualizing Curriculum to Child

Items relate to the understanding of concepts pertaining to the idea that the curriculum should be developed from a knowledge of the child's past experience, level of development and his needs in order to live in society. The idea is that the content and especially the pace and sequence of the curriculum should be fitted to the child. Such concepts might be: the teacher must know the abilities and attitudes of each child to develop an effective instructional program; if the children are not learning, the teacher should modify her method of teaching; she must constantly assess the progress of her children so as to be able to present them with learning situations that are just novel enough to them to be challenging.

Subtest V - General Center Planning and Organization

Items relate to the understanding of concepts pertaining to the organization and operation of the Child Development Center. These do not include instruction of child development related concepts but rather the way the center is run and the part the paraprofessional plays in its procedures. Such concepts might be: understanding the various roles of the personnel; the importance of planning and goals of the center for facilitating the development of aptitudes and attitudes, etc.

Even though this project began with the summer workshops in July, the teachers and teacher aides were not pretested until mid-September. This delay was prompted by the relatively extreme negative reaction of the local teachers and teacher aides to the prospect of being tested. This reaction grew despite detailed explanations of the need for assessment and the nature and general content of the tests to be employed. Assurances regarding the confidential nature of the test scores were also given, but to no avail. As a result, it was decided to postpone pretesting until the training staff was able to build sufficient trust and rapport with the teachers and

teacher aides. Testing created no such problems with the teachers and teacher aides in the Distal Comparison group.

Children in all groups were given the Stanford-Binet (Form LM), the Visual Motor Integration Test (Beery, 1967) and Goldmann, Woodcock and Fristoe Test of Auditory Discrimination (1969).

The Test of Visual Motor Integration is comprised of 24 geometric forms which the child is required to copy. Successful performance requires visual perception and motor skills as well as the ability to integrate sensory information and motoric performance.

The Goldmann, Woodcock and Fristoe Test of Auditory Discrimination is comprised of two parts. Prior to testing the child is taught to recognize the pictures employed in the test. In the first part of the test the child wears earphones and is instructed by a tape recorded voice to point to one of the four pictures displayed on a template in front of him. Successful performance on this part requires that the child discriminate between pictures which represent similar sounding words. The second part of the task is similar to the first except that a noise background is added. Successful performance on this part not only requires that the child discriminate between similar sounding words but also discriminate a relevant signal from a distracting background. The Quiet and Noise subtests are each comprised of 30 items.

These tests were included in the battery because perceptual factors are vitally important in early learning and because of the heavy perceptual emphasis in the DARCEE program.

Results

Teachers and Teacher Aides

The first series of analyses in this section describes the pretest and posttest scores achieved by the teachers and teacher aides on several paper and pencil tests. These tests were designed to measure attitudes, vocabulary, and concepts which reflect an understanding and knowledge of DARCEE's approach to early education.

Table 2 shows the pretest and posttest group means on the DARCEE Teacher Attitude subtests. The analysis of Subtest I, shown in Table 3, indicated the presence of

Table 2

Pretest and Posttest Means on DARCEE Teacher Attitude Subtests

		Group					
		Elaborated Treatment		Abbreviated Treatment		Distal Comparison	
Subtest	Number of Items	Pretest	Posttest	Pretest	Posttest	Pretest	Posttest
1	27	24.36	24.82	23.38	24.75	23.20	22.10
2	31	25.27	26.45	26.56	27.56	25.00	25.90
3	22	19.64	20.27	20.69	20.81	20.40	20.20
4	28	24.91	26.36	25.50	26.75	24.90	25.10
5	13	12.27	12.45	12.62	12.19	12.40	12.00

a significant G x T interaction ($F = 4.73$, $p < .05$). Further analyses for simple effects indicated no significant pretest differences, but showed a significant difference between groups on the posttest ($F = 7.44$, $p < .005$). Subsequent analysis

Table 3

Summary of Lindquist Type I Analysis of Variance Between Pretest and Posttest Scores on the DARCEE Teacher Attitude Subtest I of the Elaborated, Abbreviated and Distal Comparison Groups

Source	df	MS	F	p
Between	36	7.72		
Groups	2	21.15	3.05	ns
Error (G)	34	6.93		
Within	37	2.43		
Trials	1	3.46	1.74	ns
G X T	2	9.42	4.73	< .05
Error (T)	34	1.99		
Total	73	5.04		

of the posttest scores on Attitude Subtest I, presented in Table 4, indicated that the mean scores of both treatment groups were significantly higher than the mean score of the Distal Comparison Group. However, only the Abbreviated Treatment group gained significantly from pretest to posttest ($t = 3.38$, $p < .05$).

Analyses of the remaining Attitude subtests are presented in Tables A, B, C and D (Appendix A). These results indicated that all three groups, taken together, gained

Table 4

Newman-Keuls Sequential Comparison Between Posttest Mean Scores on DARCEE Teacher Attitude Subtest I for Elaborated, Abbreviated and Distal Comparison Groups

Order Group Mean	3 Distal Comparison 22.10	2 Abbreviated 24.75	1 Elaborated 24.82
3		2.65*	2.72*
2			.07
1			
r		2	3
*95, $r\sqrt{MS\ error/\tilde{n}}$		1.53	1.85

significantly from pretest to posttest on Subtest 2 ($F = 19.52$, $p < .05$) and 4 ($F = 5.50$, $p < .05$). No significant differences between trials or between groups occurred on Subtests 3 and 5.

Pretest and posttest group means on the DARCEE Teacher Vocabulary subtests are presented in Table 5. The analysis of Subtest I, shown in Table 6, indicated the presence of a significant G x T interaction ($F = 8.80$, $p < .05$). Analyses for simple effects revealed no significant differences between groups on the pretest, however, a significant between-group difference was indicated on the posttest ($F = 3.44$, $p < .05$). Table 7 presents the results of an analysis of posttest scores on Subtest I. These results indicated that both Treatment group means were significantly higher than the mean of the Distal Comparison group. Only the Abbreviated Treatment

Table 5

Pretest and Posttest Means on DARCEE Teacher Vocabulary Subtests

		Group					
		Elaborated Treatment		Abbreviated Treatment		Distal Comparison	
Subtest	Number of Items	Pretest	Posttest	Pretest	Posttest	Pretest	Posttest
1	19	16.27	16.27	15.50	17.06	14.30	13.60
2	17	13.18	14.18	14.56	14.69	12.20	12.30
3	25	20.36	21.00	20.88	22.06	20.10	20.00

Table 6

Summary of Lindquist Type I Analysis of Variance Between Pretest and Posttest Scores on the DARCEE Teacher Vocabulary Subtest 1 of the Elaborated, Abbreviated and Distal Comparison Groups

Source	df	MS	F	p
Between	36	14.16		
Groups	2	39.54	3.12	ns
Error (G)	34	12.67		
Within	37	2.94		
Trials	1	4.38	1.71	ns
G X T	2	8.80	3.44	< .05
Error	34	2.56		
Total	73	8.48		

Table 7

Newman-Keuls Sequential Comparison Between Posttest Mean Scores on DARCEE Teacher Vocabulary Subtest I for Elaborated, Abbreviated and Distal Comparison Groups

Order	3	1	2
Group	Distal Comparison	Elaborated	Abbreviated
Mean	13.60	16.27	17.06
3		2.67*	3.46*
1			.79
2			
r		2	3
*95, r $\sqrt{\text{MS error}/\bar{n}}$		2.24	2.70

group gained significantly ($t = 5.14$, $p < .05$) from pretest to posttest.

Analyses of the remaining Vocabulary subtests are presented in Tables E and F (Appendix A). These results indicated no significant differences between groups or trials.

Table 8 shows pretest and posttest means on the DARCEE Basic Concept subtests. The analysis of scores on Subtest 4, presented in Table 9, indicated the presence of a significant G x T interaction ($F = 6.52$, $p < .005$). Analysis of the pretest scores indicated significant between-group differences ($F = 3.18$, $p < .05$). As a result of these initial differences, the posttest data were analyzed by means of an analysis of covariance procedure which employed the pretest scores as covariates. The outcome of this analysis of the posttest scores on Subtest 4 indicated a

Table 8

Pretest and Posttest Means on DARCEE Basic Concepts Subtests

		Group					
		Elaborated Treatment		Abbreviated Treatment		Distal Comparison	
Subtest	Number of Items	Pretest	Posttest	Pretest	Posttest	Pretest	Posttest
1	15	11.27	12.09	11.62	12.88	9.80	9.80
2	24	17.64	17.82	17.75	18.81	15.75	16.80
3	19	13.54	14.54	13.44	14.94	11.30	13.00
4	15	11.00	12.64	12.69	12.38	10.10	11.70
5	15	12.64	13.09	12.75	13.00	12.00	11.70

Table 9

Summary of Lindquist Type I Analysis of Variance Between Pretest and Posttest Scores on the DARCEE Basic Concept Subtest 4 of the Elaborated, Abbreviated and Distal Comparison Groups

Source	df	MS	F	p
Between	36	11.09		
Groups	2	16.43	1.52	ns
Error (G)	34	10.78		
Within	37	1.96		
Trials	1	11.36	8.74	< .01
G X T	2	8.47	6.52	< .0005
Error (T)	34	1.30		
Total	73	6.46		

significant between-group difference ($F = 3.66$, $p < .05$). Further analysis of the posttest data, presented in Table 10, revealed that the scores of the Abbreviated Treatment group and Distal Comparison group were significantly higher than the scores of the Elaborated Treatment group. Statistically significant gains from pretest to posttest were reflected in the scores of the Elaborated Treatment group ($t = 3.33$, $p < .01$) and the Distal Comparison group ($t = 3.54$, $p < .01$).

Table 10

Newman-Keuls Sequential Comparison Between Adjusted Posttest Mean Scores on DARCEE Basic Concepts Subtest 4 for Elaborated, Abbreviated and Distal Comparison Groups

Order	1	3	2
Group	Elaborated	Distal Comparison	Abbreviated
Adjusted Mean	11.40	12.81	13.02
1		1.41*	1.62*
3			.21
2			
r		2	3
*95, r $\sqrt{\text{MS error}/\tilde{n}}$		1.27	1.54

Analyses of the remaining DARCEE Basic Concept subtests are shown in Tables G, H, I and J (Appendix A). These results indicated that the three groups taken together gained significantly from pretest to posttest on Subtests 1, 2 and 3. The analysis of Subtest 5 revealed no differences between groups or trials.

Children

In part the plan of this study rested on the premise that positive changes in teachers' attitudes and behavior and modifications of the physical and temporal aspects of the Head Start classrooms would result in a more optimal learning environment for the children attending the treatment group classrooms. It was assumed that the effects of a more optimal learning environment would be reflected in the measured aptitude of the children in the treatment group classrooms. Analyses of children's aptitude scores were performed even though the teachers' test scores failed to reveal the presence of marked treatment effects. This was done for two reasons. First, it was apparent that the three teacher tests were inappropriate for use with the present population of teachers and aides. Pretest group means on each subtest approached the ceiling level of that subtest and left little room for improvement on the posttest. Second, these measures were not intended to, and did not assess the full range of behavioral and environmental factors that the intervention was designed to modify. Therefore, it was felt that certain changes in teachers' attitudes and behavior and in the classroom environment did occur, but escaped being measured because of the low level and limited scope of the measurement devises employed.

Table II presents the group means and standard deviations of children in the Elaborated, Abbreviated and Distal Comparison groups on the pretest and posttest of the Binet. The pretest means were all within the normal range and ran from a high of 95.30 for the Abbreviated Treatment group to a low of 89.64 for the Elaborated Treatment group.

Table 11

Stanford Binet Mean IQ Pretest and Posttest Scores and Standard Deviations for Elaborated, Abbreviated and Distal Comparison Groups

Group	Mean		Standard Deviation	
	Pre	Post	Pre	Post
Elaborated	89.64	87.84	13.48	11.13
Abbreviated	93.24	90.00	10.51	10.87
Distal Comparison	95.33	101.85	13.42	12.49

The data presented in Table 12 indicated a significant G x T interaction (F = 5.87, $p < .01$). Further analysis revealed that the groups were equivalent

Table 12

Summary of Lindquist Type I Analysis of Variance Between Pretest and Posttest Stanford Binet IQ Scores of Children in the Elaborated, Abbreviated and Distal Comparison Groups

Source	df	MS	F	p
Between	70			
Groups	2	1151.00	4.90	< .01
Error (G)	68	234.99		
Within	71	59.08		
Trials	1	1.09	0.02	ns
G X T	2	308.71	5.87	< .01
Error (T)	68	52.59		
Total	141	159.40		

on the pretest, but that there was a significant between-group difference on the posttest ($F = 8.99$, $p < .001$). Analyses for simple effects on the Binet posttest, shown in Table 13, indicated that the mean score of the Distal Comparison group was significantly higher than the mean scores of both treatment groups. Treatment

Table 13

Newman-Keuls Sequential Comparison Between Posttest Mean IQ Scores of Elaborated, Abbreviated and Distal Comparison Groups on the Stanford Binet

Order	i	2	3
Group	Elaborated	Abbreviated	Distal Comparison
Mean	87.84	90.00	101.86
1		2.16	14.02*
2			11.86*
3			
r		2	3
*95, r $\sqrt{MS \text{ error}/\tilde{n}}$		6.62	7.96

group children declined slightly from Binet pretest to Binet posttest, but this decline was not significant. The 6.52 point gain experienced by the Distal Comparison group was significant ($t = 2.25$, $p < .05$).

Table 14 shows group means and standard deviations on the pretest and posttest of the Visual Motor Integration Test. The results of the analysis of these data, shown in Table K (Appendix A), indicated that when taken together all three groups gained

Table 14

Visual Motor Integration Pretest and Posttest Mean Scores and Standard Deviations for Elaborated, Abbreviated and Distal Comparison Groups

Group	Mean		Standard Deviation	
	Pre	Post	Pre	Post
Elaborated	4.20	6.92	1.95	2.44
Abbreviated	5.56	7.40	2.31	2.38
Distal Comparison	4.52	6.86	2.71	1.82

significantly from pretest to posttest.

Table 15 presents group means and standard deviations on the pretest and posttest of the Goldman, Woodcock and Fristoe Test of Auditory Discrimination.

Table 15

Pretest and Posttest Means and Standard Deviations for Elaborated, Abbreviated and Distal Comparison Groups and Quiet and Noise Subtests of Goldman, Woodcock & Fristoe Test of Auditory Discrimination

Group	Quiet Mean		Noise Mean		Quiet SD		Noise SD	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Elaborated	17.84	19.44	11.48	12.72	4.36	3.97	3.66	3.01
Abbreviated	19.04	22.24	13.40	14.60	4.83	3.40	3.96	3.37
Distal Comparison	16.81	19.95	10.71	12.48	4.65	4.01	5.40	4.18

The analysis of scores on the Quiet subtest is presented in Table L (Appendix A) and indicated that all groups, taken together, gained significantly from pretest to posttest.

Likewise, the analysis of scores on the Noise subtest, shown in Table M (Appendix A), indicated that the three groups taken together gained significantly from pretest to posttest.

Discussion

The results of the present study were disappointing. On the other hand, the results that were obtained and especially the knowledge that accrued over the year's experience do shed some light on the dissemination - training process.

Three tests, comprising a total of 13 subtests, were administered to assess the effects of training on teachers and teacher aides. Analyses of scores on only three of these subtests yielded significant results. While the number of significant F ratios obtained was only a fraction of the 13 possibilities, three significant F ratios are more than would be expected by chance alone ($F = 6.17$, $p < .05$).

Scores on one subtest of each of the three teacher tests administered reached significance. The DARCEE Teacher Attitude scores (Subtest 1) indicated that teachers and teacher aides in both treatment groups had a greater appreciation for the importance of teacher competence, hard work, persistence and careful planning, and structuring and sequencing of the curriculum than their counterparts in the Distal Comparison group. Similar findings appeared with respect to scores on the DARCEE Teacher Vocabulary Test (Subtest 1). These data indicated that teachers and teacher aides in both treatment groups developed a greater facility than teachers and teacher aides in the Distal Comparison group to use vocabulary pertaining to the organization and preparation of classroom activities. Scores on the Attitude (Subtest 1) and Vocabulary (Subtest 1) Tests indicated that only the Abbreviated Treatment group gained significantly from pretest to posttest. This pattern was contradicted by scores on the DARCEE Basic Concept Test (Subtest 4). These scores indicated that teachers and teacher aides in the Abbreviated Treatment group and the Distal

Comparison group had a greater understanding of concepts pertaining to the modification of the preschool curriculum to meet the needs of the individual child than teachers and teacher aides in the Elaborated Treatment group. This time further analyses indicated that only the scores of the Elaborated Treatment group and the Distal Comparison group increased significantly from pretest to posttest.

The nature of these results is too fragile and inconsistent, and the differences between groups are too small, even when statistically significant, to warrant a conclusion that the training was effective. However, certain other observations can be made.

The most prominent inadequacy of this study was in the assessment instruments employed. The three DARCEE tests were developed to measure treatment effects in a project designed to train teacher aides in several Mississippi Child Development Centers. The teacher aides in this particular study were approximately 32 years old, had completed almost 11 years of school, and read at about a seventh grade level. The DARCEE tests were administered to this group and no ceiling phenomenon occurred. A ceiling phenomenon did appear on the pre-test administration of the DARCEE tests in the present study. While this occurrence might have been expected for the teachers in the present group, it was not anticipated that the teacher aides, who exhibited roughly the same characteristics as the Mississippi group, would initially score so high. The postponement of the pretesting until after the summer workshops probably did not inflate these scores since teachers and teacher aides in the untreated Distal Comparison group scored as high on the pretest as those in both treatment groups. There is a possibility that

the summer workshop experience served to bring the treatment groups up to the level of the untreated Distal Comparison group and that prior to training the Distal Comparison group was functioning at a higher level than the treatment groups, but the available evidence, such as the Lorge Thorndike IQ scores, fails to support this explanation. Consequently, it appears the only justified conclusion is that the three DARCEE tests were inappropriate to the nature and level of the present groups of teachers and teacher aides. These tests must be revised and/or used with lower level groups.

It might also be worth mentioning that research designs, such as the one employed in the present study which contrast the effects of different training methods on teachers and teacher aides, have a tendency to obscure differences between treatments. In this study teachers and teacher aides in all groups gained significantly from pretest to posttest on seven of the remaining 13 subtests. Three of the differences were on Attitude subtests, and four were on Basic Concept subtests. It may well be that a year of teaching has a marked impact on teachers and, therefore, accounts for a good deal of test score variability on measures of teachers' attitudes and their understanding of basic teaching concepts. The effects of supplementary training experiences, especially when gauged by insensitive measures, tend to appear relatively small and inconsequential. Comparisons between the effects on teachers of different treatments are unavoidable but require the development of more precise and sensitive instrumentation.

The three DARCEE tests were not intended to cover all aspects of the training project. Although many of the subtest items were related to the 11 basic features

of the DARCEE model, they failed to substitute adequately for a more direct assessment of how well the teachers, teacher aides, and the classroom environment approximated the various aspects of the model. The test data failed to reflect considerable change, but records maintained by the DARCEE staff did indicate that significant changes occurred. An example of this is evident in the daily schedules that were followed in the Elaborated and Abbreviated Centers in the early part of the school year and then again toward the end of the Spring semester (Appendix B). The daily schedules revealed that more time was spent on learning activities and that there was a greater balance of activities toward the latter part of the project. A similar example is shown in Appendix C. Before the project began, very little planning was done. When teachers did plan, they usually did so on a daily basis. The block plans shown in Appendix C were written by teachers and teacher aides in the Elaborated Centers. These block plans reflect appropriate sequencing, consistency and completeness. In addition the teachers and teacher aides in both treatment groups devised their own pupil evaluation booklets, instructional units and materials, all of which indicated aspects of training effectiveness that escaped measurement by the paper and pencil tests.

The negative reaction of the local teachers and teacher aides to the prospect of being tested probably had a more important influence on the success of this project than is evident at first glance. Even though the rejection of testing has gained currency among segments of the low income community, the reaction of the local teachers and teacher aides seems to have had a quality peculiar to the present study. This negative reaction was one of a number of expressions of the ambivalent

commitment that was exhibited toward the training endeavor. There are many possible ways to conceptualize this situation, but the one conceptualization that seems to fit most aspects of the problem pertains to the very nature of the project. The training program was geared to institute major modifications in teaching practices and in classroom organization. Even though the training goals were analyzed into small, achievable steps, training tended to disrupt the teachers' usual routines. This was particularly true for the training that took place in the Elaborated classrooms. Some teachers and teacher aides changed easily and readily. Others resisted change at every point along the way. The fact that some of the teachers saw a conflict between certain DARCEE practices and certain principles espoused by Head Start tended to compound the problem. As a result, commitment to the project was sporadic and limited to only a few teachers and aides.

The extent to which the local Head Start administration, lead teachers, teachers and teacher aides are committed to try a new preschool model appears to have a potent impact on the success of this type of endeavor. Weikart (1969) made this point in a report describing a project in which the effectiveness of three preschool curricula was studied. In this study a unit-based curriculum, similar to the one used at DARCEE, was compared to a cognitively oriented curriculum developed by Weikart's group in the Ypsilanti Perry Preschool Project and to a language training curriculum developed by Bereiter and Englemann. After one year of intervention, intelligence test scores, teacher ratings and classroom observations indicated no significant differences between programs in terms of effectiveness. The preschoolers in each program, however, evidenced significant

increases in IQ. In discussing the relatively large IQ gains experienced in each group, Weikart speculated that "clear commitment to a specific theoretical curriculum model" and a more general commitment to the program, signified by a willingness to spend extra time in planning, report writing, etc., helped contribute to the success of each model studied.

The results of the present study confirmed Weikart's argument, at least in a negative sense. It is imperative that the commitment of model recipients be developed before any attempt is made to deliver that model. This commitment must also be gauged and nurtured throughout the training experience.

The periodic abrasions between the training staff and the Head Start staff were more evident in the Elaborated Centers than in the Abbreviated Centers. The only difference in treatment was that the training staff worked with teachers and teacher aides in the Head Start classrooms in the Elaborated Centers but not in the Abbreviated Centers. In some ways the teachers may have viewed the role of the visiting training staff member as that of a supervisory teacher, checking to see if things were done the "right" way. Many precautions were taken to prevent this from happening, but there were a few indications that teachers saw the activities of the trainers as intrusions. Furthermore, it may well be that the combination of the demands of a full time teaching job and the demands that arose in the course of the Elaborated treatment tended to overwhelm the teachers and teacher aides and tended to precipitate interpersonal tensions and negative reactions. Joining this observation with the modest gains exhibited by teachers and teacher aides in the Abbreviated Treatment group tends to favor the less intense mode of training,

at least when the trainees have concurrent full time teaching responsibilities.

The efficacy of a less intensive training approach was demonstrated in a recent study reported by Saslow (1970). The purpose of this study was to train teachers and teacher aides to use the DARCEE model. The population for this study consisted of all Head Start classrooms on seven Indian reservations in North and South Dakota. The research plan involved testing a random sample of children from each reservation. The Binet, the Slosson Intelligence Test and the Visual Motor Integration Test were employed to measure treatment effects. The treatment plan involved the training of three representatives from each reservation. These teachers were then responsible for training the Head Start staff on their reservations. The training input in this study was far less than was given to the Elaborated and Abbreviated groups. Nevertheless, the results indicated that the selected sample of treatment group children gained significantly from pretest to posttest on the Binet, Slosson, and VMI.

If changes in teaching practices and in classroom organization did occur in the present study, the effect on treatment group children seems to have been to dilute the impact of the Head Start experience. Scores on the Test of Visual Motor Integration and Goldmann, Fristoe and Woodcock Test of Auditory Discrimination indicated that all three groups of children improved significantly from pretest to posttest. Unfortunately the nature of these results made it impossible to distinguish between that part of the increase due to maturation and that part due to the Head Start exposure.

The Stanford Binet IQ scores indicated that the children in the Distal Comparison group were superior to the children in the two treatment groups and that only the

scores of the Distal Control group increased significantly from pretest to posttest. In view of these results, the most reasonable conclusion is that the Head Start experience provided in the three Comparison Centers was superior to that provided in the treatment centers.

One possible reason for this finding was that the Distal Comparison Centers were unusually good. Several DARCEE staff members visited these Centers and the reports they wrote (Appendix D) indicated that the Centers were well organized, the children knew what to expect, and the staff exhibited a feeling of confidence and control over their circumstances.

Another contributing factor could have been the lower teacher-pupil ratio (1 : 7.5) in the Comparison Centers.

It is also possible that the demands on teachers and teacher aides of participating in the training program and the periodic tensions and disruption of normal routine that this participation seemed to cause, resulted in a less than optimal learning environment for the treatment group children. It is possible that once the treatment group teachers are able to relinquish their roles and accompanying responsibilities as trainees, that in time they will incorporate some of the treatment objectives with their teaching repertories. In view of this possibility, follow up testing done a year after training, might reveal the positive effects that were absent in this study.

Finally, the results of this year's experience suggest that the combination of full time teaching responsibilities and intensive training is not the best method to employ in model dissemination. It would be better to free teachers from teaching responsibilities

Total	141	159.40	34

for several w eks of institute attendance or else use a less intense training approach which extends over a longer period of time.

REFERENCES

References

Beery, K. E. Developmental Test of Visual-Motor Integration. Chicago: Follett Publishing Co., 1967.

Campbell, D. T., & Erlebacher, A. How regression artifacts in quasi-experimental evaluations can mistakenly make compensatory education look harmful. In J. Hellmuth (Ed.) Compensatory Education: A national debate. The Disadvantaged Child, III, in press.

Chesteen, H. E. Effectiveness of the Head Start Program in enhancing school readiness of culturally deprived children. Baton Rouge: Community Advancement, Inc., 1966, Microfiche #ED-020-881.

Cicirelli, V. G., Evans, J. W., & Schiller, J. S. The impact of Head Start: An evaluation of the effects of Head Start on children's cognitive and effective development. Westinghouse Learning Corporation and Ohio University, 1969.

Eisenberg, L. Follow-up of intelligence changes in children who participated in Project Head Start. John Hopkins University Hospital, 1966, Microfiche #ED-020-026.

Goldman, R., Fristoe, M., & Woodcock, A. W. Goldman-Fristoe-Woodcock Test of Auditory Discrimination. Circle Pines, Minnesota: American Guidance Service, Inc., 1969.

Gray, S. W., Klaus, R. A., Miller, J. O., & Forrester, B. J Before first grade. New York: Teachers College Press, 1966.

Hodes, M. An assessment and comparison of selected characteristics among culturally disadvantaged kindergarten children who attend Project Head Start, culturally disadvantaged kindergarten children who did not attend Project Head Start and kindergarten children who are not culturally disadvantaged. Glassboro State College, 1966, Microfiche #ED-014-330.

Madow, W. G. Project Head Start, a national evaluation: A methodological critique. Britannica review of American education. Chicago: Encyclopedia Britannica, 1969.

Miller, L. B., Dyer, J. L., & Driscoll, J. M. Experimental variation of Head Start curricula: A comparison of current approaches. Progress Report #4 to U. S. Office of Economic Opportunity, 1969.

Rubow, C. L. The effectiveness of three training methods for teacher aides working in preschool classrooms. Demonstration and Research Center for Early Education, Nashville, Tennessee, 1968.

Saslow, H., personal communication, 1970.

Weikart, D. P. Project: A comparative study of three perschool curricula. Paper presented at Society for Research in Child Development Meeting, Santa Monica, March 1969.

APPENDIX A

TABLES

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Table A

Summary of Lindquist Type I Analysis of Variance Between Pretest and Posttest Scores on the DARCEE Teacher Attitude Subtest 2 of the Elaborated, Abbreviated and Distal Comparison Groups

Source	df	MS	F	p
Between	36	15.13		
Groups	2	18.59	1.25	ns
Error (G)	34	14.92		
Within	37	4.49		
Trials	1	19.52		< .05
G X T	2	.02		ns
Error (T)	34	4.30		
Total	73	9.73		

Table B

Summary of Lindquist Type I Analysis of Variance Between Pretest and Posttest Scores on the DARCEE Teacher Attitude Subtest 3 of the Elaborated, Abbreviated and Distal Comparison Groups

Source	df	MS	F	p
Between	36	5.45		
Groups	2	4.24	.77	ns
Error (G)	34	5.52		
Within	37	1.28		
Trials	1	.67	.50	ns
G X T	2	.94	.71	ns
Error (T)	34	1.32		
Total	73	3.34		

Table C

Summary of Lindquist Type I Analysis of Variance Between Pretest and Posttest Scores on the DARCEE Teacher Attitude Subtest 4 of the Elaborated, Abbreviated and Distal Comparison Groups

Source	df	MS	F	p
Between	36	6.20		
Groups	2	7.81	1.28	ns
Error (G)	34	6.10		
Within	37	3.92		
Trials	1	19.52	5.50	< .05
G X T	2	2.40	.68	ns
Error (T)	34	3.55		
Total	73	5.04		

Table D

Summary of Lindquist Type I Analysis of Variance Between Pretest and Posttest Scores on the DARCEE Teacher Attitude Subtest 5 of the Elaborated, Abbreviated and Distal Comparison Groups

Source	df	MS	F	p
Between	36	1.22		
Groups	2	.27	.21	ns
Error (G)	34	1.28		
Within	37	.44		
Trials	1	1.10	2.66	ns
G X T	2	1.72	.19	ns
Error (T)	34	.41		
Total	73	.83		

Table E

Summary of Lindquist Type I Analysis of Variance Between Pretest and Posttest Scores on the DARCEE Teacher Vocabulary Subtest 2 of the Elaborated, Abbreviated and Distal Comparison Groups

Source	df	MS	F	p
Between	36	14.54		
Groups	2	34.72	2.60	ns
Error (G)	34	13.35		
Within	37	1.89		
Trials	1	2.65	1.40	ns
G X T	2	1.51	.80	ns
Error (T)	34	1.89		
Total	73	8.13		

Table F

Summary of Lindquist Type I Analysis of Variance Between Pretest and Posttest Scores on the DARCEE Teacher Vocabulary Subtest 3 of the Elaborated, Abbreviated and Distal Comparison Groups

Source	df	MS	F	p
Between	36	26.77		
Groups	2	12.84	.46	ns
Error (G)	34	27.59		
Within	37	2.53		
Trials	1	8.45	3.59	ns
G X T	2	2.56	1.09	ns
Error (T)	34	2.35		
Total	73	14.48		

Table G

Summary of Lindquist Type I Analysis of Variance Between Pretest and Posttest Scores on the DARCEE Basic Concept Subtest I of the Elaborated, Abbreviated and Distal Comparison Groups

Source	df	MS	F	p
Between	36	14.24		
Groups	2	38.02	2.96	ns
Error (G)	34	12.84		
Within	37	1.77		
Trials	1	11.36	7.83	<.01
G X T	2	2.41	1.66	ns
Error (T)	34	1.45		
Total	73	7.92		

Table H

Summary of Lindquist Type I Analysis of Variance Between Pretest and Posttest Scores on the DARCEE Basic Concept Subtest 2 of the Elaborated, Abbreviated and Distal Comparison Groups

Source	df	MS	F	p
Between	36	24.98		
Groups	2	25.79	1.03	ns
Error (G)	34	24.93		
Within	37	2.89		
Trials	1	12.16	4.51	<.05
G X T	2	1.55	.57	ns
Error (T)	34	2.70		
Total	73	13.78		

Table I

Summary of Lindquist Type I Analysis of Variance Between Pretest and Posttest Scores on the DARCEE Basic Concept Subtest 3 of the Elaborated, Abbreviated and Distal Comparison Groups

Source	df	MS	F	p
Between	36	23.58		
Groups	2	28.73	1.23	ns
Error (G)	34	23.28		
Within	37	4.03		
Trials	1	36.54	11.19	<.005
G X T	2	.70	.22	ns
Error (T)	34	3.27		
Total	73	13.67		

Table J

Summary of Lindquist Type I Analysis of Variance Between Pretest and Posttest Scores on the DARCEE Basic Concept Subtest 5 of the Elaborated, Abbreviated and Distal Comparison Groups

Source	df	MS	F	p
Between	36	5.94		
Groups	2	7.60	1.30	ns
Error (G)	34	5.84		
Within	37	.81		
Trials	1	.49	.59	ns
G X T	2	.80	.97	ns
Error (T)	34	.82		
Total	73	3.34		

Table K

Summary of Lindquist Type I Analysis of Variance Between Pretest and Posttest Scores of the Elaborated, Abbreviated and Distal Comparison Groups on the Visual Motor Integration Test

Source	df	MS	F	p
Between	70	8.04		
Groups	2	11.75	1.48	ns
Error (G)	68	7.93		
Within	71	5.09		
Trials	1	182.54	71.30	<.0001
G X T	2	2.43	.95	ns
Error (T)	68	2.56		
Total	141	6.56		

Table L

Summary of Lindquist Type I Analysis of Variance Between Pretest and Posttest Scores of the Elaborated, Abbreviated and Distal Comparison Groups on the Quiet Subtest of the Goldman, Woodcock and Fristoe Test of Auditory Discrimination

Source	df	MS	F	p
Between	70	30.57		
Groups	2	73.44	2.51	ns
Error (G)	68	29.31		
Within	71	9.86		
Trials	1	243.64	37.97	<.0001
G X T	2	10.04	1.56	ns
Error (T)	68	6.42		
Total	141	20.14		

Table M

Summary of Lindquist Type I Analysis of Variance Between Pretest and Posttest Scores of the Elaborated, Abbreviated and Distal Comparison Groups on the Quiet Subtest of the Goldman, Woodcock and Fristoe Test of Auditory Discrimination

Source	df	MS	F	p
Between	70	22.98		
Groups	2	76.42	3.57	< .05
Error (G)	68	21.41		
Within	71	10.30		
Trials	1	67.63	6.96	< .01
G X T	2	1.09	0.11	ns
Error (T)	68	9.72		
Total	141	16.59		

APPENDIX B

ELABORATED TREATMENT CENTER'S FALL AND SPRING SCHEDULES

Elaborated Treatment Center Schedules*

October 23, 1970

Arrival - 8:45	Free Play
8:45 - 9:00	Snacks for early group
9:00 - 9:30	Large Group
9:30 - 10:15	Small Group
10:15 - 11:00	Play time (Free choice or outdoor)
11:00 - 11:15	Songs
11:15 - 12:00	Lunch
12:00 - 2:00	Nap
2:00 - 3:00	Snack, Dismissal

March 30, 1970

Arrival - 8:45	Free Play
8:45 - 9:05	Snack
9:05 - 9:35	Large Group
9:35 - 10:25	Small Group
10:25 - 11:15	Outside Play
11:15 - 12:00	Lunch
12:00 - 2:00	Nap
2:00 - 3:00	Snack, Dismissal

*More detailed descriptions of the activities in these schedules may be found in the Block Plans in Appendix C.

Elaborated Treatment Center Schedules

October 17, 1970

Arrival - 9:00	Free Play, mostly unsupervised
9:00 - 9:20	Snack
9:20 - 10:30	Group time (at tables) - Mrs. Green supervising 13, Mrs. Streck supervising 11.
10:30 - 10:40	Large Group
10:40 - 11:00	Bathroom, lunch preparation for teachers, free running in halls for children.
11:00 - 12:00	Lunch
12:00 - 12:20	Transition to cots
12:20 - 2:00	Nap
2:00 - 3:00	Snack, Dismissal

May 4, 1970

9:15 - 9:30	Snack
9:30 - 9:55	Small Groups
9:55 - 10:15	Physical Activity
10:15 - 10:35	Large Group
10:35 - 10:55	Small Groups
10:55 - 11:55	Lunch
12:00 - 2:00	Nap
2:00 - 3:00	Snack, Dismissal

Elaborated Treatment Center Schedules

October 16, 1970

Arrival - 8:40	Free Play
8:40 - 8:50	Clean Up, Bathroom
8:50 - 9:00	Group Singing
9:00 - 9:15	Snack
9:15 - 10:00	Group Activities (at table)
10:00 - 11:00	Late bus arrival, all children put on coats, Dance Class at McFerrin Park
11:00 - 12:00	Lunch, bathroom
12:00 - 2:00	Naps
2:00 - 3:00	Snack, dismissal

April 6, 1970

Arrival - 8:55	Selected Activity
8:55 - 9:15	Snack
9:15 - 9:35	Small Groups
9:40 - 10:00	Outside Play
10:00 - 10:20	Large Group
10:20 - 10:45	Small Groups
10:45 - 11:00	Story time, Clean up, lunch preparation (done by children)
11:00 - 12:00	Lunch, bathroom
12:00 - 2:00	Nap
2:00 - 3:00	Snack, dismissal

APPENDIX C

ELABORATED TREATMENT CENTERS' BLOCK PLANS

Elaborated Treatment Center
Block Plan

TEACHER_____ WEEKLY BLOCK PLAN FOR_____

	ACTIVITIES	OBJECTIVES
MONDAY	Selected: blocks, wheel toys, easel pointing and puzzles Large Group: Dramatization: The Hare and The Tortoise Small Group: 1. Color directed activity using beads 2. Weaving for Easter baskets 3. Independent Activity	The ability to choose and stick to an activity. Sequencing Skills The ability to dramatize a story in its correct order. Color Recognition The ability to repeat or (extend) a pattern. The ability to execute the in and out, up and down motion in a weaving activity.
TUESDAY	Selected: books, blocks, housekeeping area Large Group: Field trip to Children's Museum Small Group: 1. 2. 3. Independent Activity	The ability to select one activity. Discrimination Skills To see and talk about Forrest Animals. Verbalization Skills Listening Skills To find out about Animal homes.
WEDNESDAY	Selected: easel painting, toys, puzzles & Lotto Games Large Group: Discussion on Forrest animals seen at the museum Small Group: 1. 2. Activity working on Easter baskets 3. Independent Activity	The ability to select and remain with an activity. Verbalization Skills The ability to recall incidents. The ability to execute the in and out, up and down motion in a weaving activity.
THURSDAY	Selected: large wheel toys, housekeeping area & puzzles Large Group: Story about the Hare using experience charts Small Group: 1. Math activity using color cubes 2. Activity working on Easter baskets 3. Independent Activity	The ability to select and remain with an activity. Critical Thinking Skills Sequencing Skills Color Recognition Small Motor Coordination The ability to execute the in and out, up and down motions in weaving.
FRIDAY	Selection: easel painting, books, block corner Large Group: Dying of eggs questions and answers period Small Group: Where do eggs come from? 1. 2. 3. Independent Activity	The ability to select and stick to an activity. Critical Thinking Skills Color Recognition

Elaborated Treatment Center
Block Plan

TEACHER _____ WEEKLY BLOCK PLAN FOR _____

	ACTIVITIES	OBJECTIVES
MONDAY	Selected: (I) (objectives color kinds of) (animals) Large Group: (one to one sets) (math) (Had one child) Small Group: 1. Fractions (Read) Story 2. Beads 3. Independent Activity	(I) Whole, half, vocabulary development color, sentence building language development and math (2) Beads, (introduction of) - color, green and red, one to one, counting also Introduction of Laces, following directions, and visual discrimination
TUESDAY	Selected: Large Group: Small Group: 1. Fractions 2. Flannel Story (Three Little Pigs) 3. Independent Activity	(I) Whole, half, vocabulary development, color, sentence building, language development, Math and Visual skills (2) Color and language development
WEDNESDAY	Selected: Large Group: Small Group: 1. Pegs and pegboard 2. Musical activity 3. Independent Activity - Carrot seed	(I) One to one (Math) vocabulary building, left to right skills and visual skills (2) Record, following direction body parts, and Auditory Skills
THURSDAY	Selected: Large Group: Small Group: 1. Shapes (triangle, square & circle) 2. Film on care of the body 3. Independent Activity	(I) Color, visual discrimination, shape and size, following introductions (2) How we care for our bodies, body parts and Auditory Skills
FRIDAY	Selected: Large Group: Small Group: 1. "Sesame Street" (Lesson 54) 2. Story 3. Independent Activity	(I) Which of these things are different? Likeness & differences One to one color (2) Large and small concepts Color and size One to one

Elaborated Treatment Center
Block Plan

TEACHER_____ WEEKLY BLOCK PLAN FOR_____

	ACTIVITIES	OBJECTIVES
MONDAY	Selected: Large Group: Forrest Animals - Story The Animals train ride (Book) Small Group: PLDK Cards & animals 1. Math (Ditto) 2. Patterning (Parquetry blocks & Pattern Cards) 3. Independent Activity	To read story let children identify forrest animals and animals that are not forrest animals. 1. Set numeral association: to match numerals 0-6 2. To extend a pattern using a concert model - shape & color
TUESDAY	Selected: Large Group: "Sesame Street" Small Group: 1. Language: (PLDK cards of animals and their bodies) 2. Cutting & Pasting 3. Independent Activity - Review Shapes: Linear, straight-curved	1. Association skills - animals which belong together 2. To paste neatly; to manipulate scissors and cut out simple shapes following a drawn outline.
WEDNESDAY	Selected: Large Group: Science - Skills Small Group: 1. Size concept: objects 2 different sizes 2. 3. Independent Activity	To let children examine skills through magnifying glass. To make children aware of what skills are used for many different kinds of skills. 1. To make size comparisons of objects using larger than & smaller than. Four or more objects 2. Set numeral association; reproduce numerals 0-15; Identify numerals 0-10
THURSDAY	Selected: Large Group: Story of the apple Small Group: 1. Texture concept - feel box - familiar objects of different textures 2. Animal Rummy 1st group 3. Independent Activity - 2nd group - Paper & crayon	Verbalization Skills: To verbalize under teacher direction and spontaneously with teacher & peers (also association skills) 1. To identify objects by touch only. 2. Visual discrimination
FRIDAY	Selected: Large Group: "Sesame Street" Small Group: 1. Rhyming - Alphabet A-G (Review) 2. 3. Independent Activity	Auditory discrimination Reproduce letters

APPENDIX D

REPORTS ON OBSERVATIONS OF DISTAL COMPARISON CENTERS

Observation of Distal Comparison Center
May, 1970

General Information

This center is located in a church.

The staff has one white teacher, Mrs. Wilson*, the r t are black.

All of the children (30) are black.

The children all live in this immediate neighborhood and walk to and from school.

There are 4 and 5 year olds.

This is a year round program beginning in September.

This staff does it's own recruiting of children. There is one floating social worker.

This center has been located in this church for two years. Prior to that, Head Start was under the auspices of the public schools.

Mrs. Wilson, the teacher, has been employed in the centers for only two months.

Often, this center is used as an "interning" center for newly employed staff members.

We learned from Mrs. Casey that the funding for this year has expired. They are running on a two-month supplementary funding which will expire this month (May). New funding is dependent upon meeting some newly defined criteria handed down from the regional office in Atlanta. One of these criterion is the matching of the local area, in this instance the church.

Mrs. Casey told us a regular schedule looked like this:

8:00 - 9:00	Breakfast
9:00 - 10:30	Free Play (outside)
10:30 -	Juice
10:30 - 11:30	Group time (divided chronologically into 2 groups of 15 each)

*Names have been changed.

11:30 - 12:30	Sesame Street (older children)
12:30 -	Lunch, naps Staff meetings and Home Visits during nap time "when necessary."
3:00 -	Dismissal

Mrs. Casey told us that group time usually consisted of:

Stories
Art
Language Art
PLDK Lessons
Numbers
Colors
"messy activities " (which she feels the children like most).
"Sesame Street Guide" follow up

This is the schedule which we observed:

(We arrived at 9:00)

9:00	Outdoor activity (4 late children having breakfast). The children were on a large, fenced in, grassy playground with a swing set, sand box, asphalt area, slide, walking bars. When we arrived the staff, with the exception of Mrs. Casey, who was inside, were seated together, talking among themselves. The children ran, played freely. After about 5 minutes, the staff got up and started to interact with the children and continued to do so until the end of the period. Although the children were very obedient when spoken to, standards were not well set. The teachers could have exercised more precautions concerning safety. Twice a child was slightly injured. One little boy lost his eye glasses.
10:10	The children came inside. At least 5 minutes dead time spent sitting, waiting.

10:15	Grace, juice, head down on desk for rest. Children did not help serve themselves. Teachers did not converse with the children. There was very little child - child interaction. Children went to the bathroom during this time but only upon request.
10:30	Group Activities Group I (older children in a 5 minute large group) Mother's Day - flannel board and Instructo kit material. Standards poorly set, expectations unclear, children distractable, very inattentive. Transition back to table - smooth. Children instructed to make Mother's Day cards (cutting, pasting magazine pictures.) Material randomly distributed, expectations unclear, standards not set.
	Group II Sponge painting activity. Teachers seated at table modeling with children. Children divided into groups of 7 and 8. Transition to pasting construction paper chains. Children persisted at each task almost to the point of perseveration.
11:12	Clean-up Group I. Children help by washing off tables.
11:15	Both groups back outside
11:30	*"Sesame Street", Group I (Inattentive about 40 percent of the time) Group II outside
12:05	Lunch preparations both groups
1:12	Down on cots for the afternoon

*"Sesame Street" watched in color on color set donated by RCA.

Physical Setting

1. Very attractive, very orderly, plenty of space
2. Clearly defined areas of activity (block area, housekeeping, books, science, etc. . . .)
3. Lovely bulletin boards and teacher displays on the wall all centering around spring or health rules.
   Some children's paintings on the wall.
4. Grouping patterns mentioned above.
5. Scheduling patterns mentioned above.

Social Characteristics

1. Atmosphere very warm, pleasant, child supportive
2. Expectations not clearly defined
3. Behavior management mostly after-the-fact; non-punitive
4. Teachers professional, interested, pretty team - oriented NYC Worker - "just - a job"

Educational Characteristics

1. Adults in the classroom all function as teachers. Most of the day in non-directive.
2. Attitude development is apparently incidental.
3. Skill development is pretty unspecified left up to "Sesame Street" primarily.
4. No unit development in evidence.

Observation of Distal Comparison Center
May, 1970

General Information

This center is located in a large, apparently affluent, racially mixed church.

The staff is all black.

The children are all black (31 children).

The children all live in this immediate neighborhood and walk to and from school.

This is a year-round program, beginning in September.

There are 3, 4, and 5 year olds. Most of the 5's and all of the already turned 6's will go to first grade in the fall.

The staff does its own recruiting of children.

This church - located center has been in operation for two years. Prior to this, Head Start was under the auspices of the public schools.

A typical day begins at 7:00 a.m. with staggered arrivals and ends at 3:00 p.m. with staggered dismissals.

The day I observed was reported, by the staff, to be atypical in at lease three ways:

1. The cook was absent, two NYC workers absent.
2. Aide 2 carried some children to the dentist.
3. It was Friday, the janitor had polished floors and cleaned in preparation for Sunday services. Activities of the children were limited so as not to "mess up."

All of the children were in the three smaller rooms so that the teacher, Mrs. Henry, could supervise all of the children.

Mr. Stewart had to spend sometime in the CAP office but returned about 10:15.

Mrs. Willis substituted for the cook.

I. Physical Characteristics

A. Physical Setting

The classrooms occupy 4 medium to small-sized rooms in this large lovely church.

The facilities are new, modern.

Tables and chairs are child height.

No child-height toilet or water facilities were observed.

The materials: housekeeping furniture, blocks and building, wooden double rocker, miscellaneous play items, were spread out in a rather disorganized manner in three of the small rooms.

There were individual cubbies for each child.

There was a medium-sized bookcase on which there were about 20 books, in fairly good condition, neatly arranged. None of them were multi-ethnic.

There were a few attractive posters ("We brush our teeth" etc. . .) on the walls.

No child's work was displayed this day.

In general, the rooms were not well organized, not as attractive as just a minimum amount of effort could have afforded.

B. Grouping

Ordinarily, the children are grouped chronologically into 2 groups. Ordinarily, there are 3 adults to 15 or 16 children.

C. Temporal Characteristics

Schedule observed:

8:30 - 9:15	Breakfast
9:15 - 10:10	Outdoor free play (organized games)
10:10 - 10:30	Snack
10:30 - 11:30	Pasting activity (Mother's Day Cards) - one group

The other children in 2 other rooms in semi-supervised free play.

One teacher, Mrs. Henry, worked with all of the children.

11:30 - 12:00 "Sesame Street" for about seven children. The others outside.

12:00 I left.

More typical schedule (according to Mr. Stewart)

7:00 - 8:00	Staggered arrival Free Play (supervised by NYC workers) outside whenever weather permits.
8:00 - 8:45	Breakfast
8:45 - 9:00	Large Group "Song Time"
9:00 - 9:30	Group time ("Structure" for older children--mostly Sesame Street follow-up).
9:30 - 10:30	Outside
10:30 - ???	Snack, head down for few minutes rest.
11:30 - 12:30	"Sesame Street" for "whoever wants to watch" - others outside.
P.M.	Lunch, Nap and Dismissal

II. Social Characteristics of the Program

A. Attitude of teachers

1. Non-complaining about the difficult day.
2. Non-apologetic about the appearance of the day to an observer.
3. Evidently supportive of each other.
4. Evidently interested in the children.
5. Evidently self-confident.

B. Behavior Management

1. Little standards setting in evidence.
2. Most behavior management after-the-fact (after an injury, a spill, an infraction or rules).
3. Mrs. Henry, negative, very pleasant.
4. Mr. Stewart, non-directive, ambiguous, pleasant.
5. Mrs. Willis, somewhat punitive, mostly pleasant.
6. General atmosphere - free, child-supportive more often than not, expectations undefined.

III. Educational Characteristics

A. Role of adults - all adults functioned as teachers except Mr. Moore who said he did "special" things with the children, "like Science experiments."

I inferred from conversations with Henry, Stewart, and Willis that, most of the time, the teachers are non-structured in their activities without predetermined, written goals.

B. Skill Development - nondefined program seemingly left to "Sesame Street" and incidental learning.

C. Attitude Development - incidental, non-defined except for broad Head Start guidelines.

D. Unit Development - non-specified. Sometimes themes developed around holidays.

E. Planning and Evaluation -- none in evidence.

All of the teachers had had some In-service training. either institutes like Tuskegee of Florida, or RTO workshops (at least once every two months).

One noteworthy impression: This staff, all people with less than a Bachelor's degree, seems to function in a very professional manner. Each of them seems to regard him/herself as a responsible decision-maker. The "pecking order" system is not in evidence. This is probably due to the "Career development ladder" which is indeed in effect in this Head Start Area. This staff's morale is probably higher than that of most of the Head Start's staffs in Nashville at this point in the year.

Observation of Distal Comparison Center
May, 1970

A. Organization and utilization of physical space

At this Head Start Center, most classroom activities were conducted in one large room. It was clear, well-lighted by one long wall of windows, and large enough to comfortably contain the 30 children. There were five small tables with six or seven chairs apiece and one tall table in the front of the room for the color T.V. (a gift from R.C.A.). Adjacent to this large room were the kitchen, bathrooms, one small room for house-keeping furniture, and one small room where the most advanced children are sometimes grouped for story time, etc.

Cubbies lined two of the walls in the large room. There was a very attractive house-keeping center mentioned above and a science center consisting of one long table. I did not see any books in the room or a specific place set aside for books.

The walls were slightly cluttered but attractively covered with art work - some of it made by the teachers, but most of it by the children. The largest portion of the artwork was displayed on a long bulletin board above the eye level of the children.

Two bookshelves were neatly filled with paste, paper, and other consumable materials. Cubbies, shelves, tables, and other furniture were in good shape. The overall atmosphere of the room was bright and cheerful.

B. Organization and utilization of time

Schedule observed:

7:00 - 8:15	Free choice
8:15 - 8:55	Breakfast
8:55 - 9:05	Bathrooming
9:05 - 10:00	Group time - usually devoted to a follow up to "Sesame Street"
10:00 - 10:15	Snack
10:15 - 10:30	Quiet time - (heads down on table)
10:30 - 11:30	Outside play
11:30 - 12:30	"Sesame Street"
12:30 - 1:30	Lunch
1:30 - 3:00	Nap
3:00	Dismissal

The teachers probably follow this schedule rather consistently because the children seemed to know what to expect next. I observed "group time" with the more advanced children. It was very school oriented - a story and reproduction of the

letters A, B, and V. There is no differentiation between large and small group.

The schedule is fairly well balanced between quiet and active periods. However, it is unfortunate that "Sesame Street" is broadcast so late in the day because on the day I observed the children were hyper-active and did not attend well to the T.V. They did utilize some "left-over" time between play and "Sesame Street" for singing along with a record.

C. Classroom atmosphere

On the whole, the atmosphere was punitive. One teacher in particular spent most of her time "barking" at the children. The other teachers, especially the supervising teacher, were somewhat warmer, but no one had any concept of standard setting.

D. Roles and responsibilities assumed by the teachers.

Mrs. Jones, the supervising teacher, served primarily as an administrator on the day I observed. She answered the phone, talked to me and later had to leave the center for a short while to go to the C.A.P. office. I did not see her actually teaching a group of children. I doubt that she is responsible for a group of her own; however, I never had the opportunity to ask her specifically.

It seems that Mrs. Smith, the teacher, is responsible for more of the actual classroom teaching. She was definitely an authority figure and a "drill-type" teacher.

E. Roles and responsibilities assumed by the aide.

Mrs. Hall and Mrs. Peters worked with the three and four-year-olds. I could not observe their "group time." However, it is my conjecture that these activities are usually devoted to pasting, cutting, and other primarily manipulative skills.

They seemed to serve primarily as assistants to the teachers and cook by cleaning up materials, setting the table and pouring milk.

F. Teacher - pupil ratio

The teacher and the two aides are responsible for small groups of about 10 children making the teacher - pupil ratio 1 - 7.5. The supervising teacher seems

to serve primarily to direct the classroom during transitions. There were no N.Y.C. workers teaching in this center.

G. Teacher preparation

The teachers and aides do not keep lesson plans but they follow the "Sesame Street" teaching guide. They did not indicate that they ever met together to plan. Mrs. Smith, whom I observed teaching a small group, seemed well-prepared. She had all of her materials with her and seemed to have planned the directions she gave concerning reproduction of letters.

H. Teacher effectiveness

Mrs. Smith read a story to the children and did a good job of recalling the events of the story afterwards. However, her activity would have been more effective if she had not assumed a cold, authoritarian manner. When the children reproduced letters of the alphabet, she gave little praise. The children were seated on the floor which made it very difficult to write.

I did not observe any of the other teachers in a teaching activity.

I. Appropriateness of activities for the age and number of children

Mrs. Smith's activities were for the most part appropriate in that the children seemed interested in the story and most of them were successful at reproducing the letters.

J. Reinforcement and behavior management

Neither the teachers nor the aides had any concept of the use of positive reinforcement, setting standards, etc.

K. Skill development program

The teachers did not evidence an awareness of skill objectives except those emphasized in the "Sesame Street" teaching guide. They do not develop units as such but do work on Holiday themes. None of the teachers seemed to be aware of the importance of utilizing every part of the day as a learning experience.

L. Attitude development

Generally, there was a lack of effort to develop anything even similar to "DARCEE Attitudes." Positive self concept suffered most because of the rather punitive atmosphere.

Recommendations:

In my opinion, this center has a great deal of potential because of teacher commitment and good physical facilities and equipment. However, the staff needs extensive input concerning behavior control, curriculum development, and attitude development.