A plan for preschool education of culturally deprived 5- and 6-year olds in the Lamar Independent School District, a project of Gulf Schools Supplementary Education Center. By: Tope, Thomas, Jr. and others.

Gulf Schools Supplementary Education Center

PUB DATE 07

EDRS PRICE MF-$0.25 HC-$1.44 34P.

DESCRIPTORS—*CULTURALLY DISADVANTAGED, ENRICHMENT EXPERIENCE, INFORMATION DISSEMINATION, *LANGUAGE DEVELOPMENT, ORGANIZATION, *PRESCHOOL CHILDREN, *PRESCHOOL PROGRAMS, *PSYCHOLINGUISTICS, PERCEPTUAL MOTOR COORDINATION, PROGRAM EVALUATION, PERSONNEL SELECTION, VISUAL PERCEPTION, FORT BEND COUNTY TEXAS.

The planning draft offered for preschool education of culturally deprived 5- and 6-year olds in the Lamar Independent School District of Fort Bend County, Texas, investigates factors and problems affecting the preschool child in the culture of the economically deprived. Answers are sought to the following questions—what areas of developmental insufficiency could be identified in the economically disadvantaged preschool child? What methods and activities could be employed to overcome or minimize these deficiencies? What differentials could be revealed between a program organized around diagnostic instruction reinforced by related activities and one predicated upon primary grade method in the self-contained classroom? Would children who participated in these programs exhibit measurable differences from those who had not participated in the program if measurement were undertaken during the first year of school? Areas of emphasis were language development, psycholinguistic development, motor coordination, visual perception, recreation and quiet time, lunch, and enrichment experiences. Discussion is presented about the following aspects of the program—classroom organization, criteria for staff selection, evaluation means and methods, and purposes and methods of dissemination. (JH)
A PLAN
FOR PRESCHOOL EDUCATION
OF
CULTURALLY DEPRIVED 5-AND 6-YEAR OLDS
IN THE
LAMAR INDEPENDENT SCHOOL DISTRICT
A PLAN
FOR PRESCHOOL EDUCATION
OF
CULTURALLY DEPRIVED 5- AND 6-YEAR OLDS
IN THE
Lamar Independent School District

Pearland, Texas

1967
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The organization of a preschool program and evaluative design ancillary to it for the Lamar Independent School District required the coordinated effort of a large number of persons. Mr. John C. Rogers, Superintendent of the Lamar School District, assigned Mr. Jim Roberts as the district representative in the work, and the ideas and highly cooperative spirit of Mr. Roberts contributed materially to every phase of the project development. A number of staff persons in the Lamar Schools worked on various aspects of planning and evaluation, and their names, insofar as they can be identified individually, will appear in the acknowledgements section of the evaluation report on the project when it is published. The professional talents and teamwork of the Lamar Schools staff are gratefully acknowledged, and they reflect great credit upon the district and its administration.

Mrs. Nancy Kirk, Dean of San Jacinto High School in Houston, Texas, and experienced as a teacher and counsellor of culturally deprived children, served as a consultant in the program planning phase and supervised the testing phase of the project. Her valuable services will be further evidenced in the evaluation report to be published at the conclusion of the program. Mr. Clyde Blackman, Principal of Anson Jones Elementary School in Houston, Texas, was of great assistance in providing insight into practical learning difficulties of Latin-American children, as well as specific program id... Miss Bettye Lacy, Director of Special Education in the LaMarque Independent School District, gave valuable advice which led to selection of the Peabody Language Development Kit for use in one segment of the program, and Mrs. Mary Hammond of Texas Women's University conducted preservice training of teacher personnel in use of the kit.

Mr. James A. Sims of the Center Staff conducted an exhaustive search of reported research on preschool training and worked closely with Lamar School District administrators to help translate these findings into various aspects of the project.

The evaluation design was formulated by Mr. James Hefter, Assistant Director of the Center in charge of evaluation, and the entire Center staff contributed to the editorial and production tasks necessary to publish this report.

This program was developed with the guidance and assistance of knowledgeable consultants who possessed long experience and proven effectiveness in working with the children of the disadvantaged culture, and it incorporated the reported experience of a number of school districts which have operated and evaluated preschool programs. It may be adapted for use by any school district which seeks an approach to remediation of learning disabilities common to economically and culturally deprived children.
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THE PROBLEM

Origin of the Problem

Mr. Thomas Tope, Director of Gulf Schools Supplementary Education Center, was contacted by Mr. J. C. Rogers, Superintendent of Lamar Independent School District, requesting aid in the development of a guide and evaluative procedure for the operation of a preschool program under Title I of ESEA.

Statement of the Problem

The purpose of this project was to investigate factors and problems affecting the preschool child in the culture of the economically deprived with a view to developing a program embodying specific goals and activities and an evaluative design for use during the summer of 1967 in the Lamar Independent School District of Fort Bend County, Texas.

In the light of the results of this investigation, a program was organized and evaluated which could be used as the basis for similar preschool cultural orientation in other school districts.

Specifically, answers were sought to the following questions:

1. What areas of developmental insufficiency could be identified in the economically disadvantaged preschool child?

2. What methods and activities could be employed to overcome or minimize these deficiencies?

3. What differentials could be revealed between a program centered around diagnostic instruction reinforced by related activities and one predicated upon primary grade methods in
the self-contained classroom?

4. Would children participating in these programs exhibit measurable differences from those who had not participated in the program if measurement were undertaken during the first year of school?

Related Factors

In 1960, the U. S. Census listed Fort Bend County population at 40,527. A 1964 estimate listed a growth to 45,114. The 1960 census reflected the following population by age groups:

<table>
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<th>Age Group</th>
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<tr>
<td>Under 5 years of age</td>
<td>12.9%</td>
</tr>
<tr>
<td>5 to 19 years of age</td>
<td>30.8%</td>
</tr>
<tr>
<td>20 to 44 years of age</td>
<td>31.5%</td>
</tr>
<tr>
<td>45 to 64 years of age</td>
<td>17.7%</td>
</tr>
<tr>
<td>65 years or over</td>
<td>7.0%</td>
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Other 1960 census data of Fort Bend County revealed the following information which indicated facts and trends in family living areas. There were 11,551 households with an average of 3.7 people per household. Of the families 8.3 percent earned $10,000 or more, as compared to 38.5 percent with average yearly income under $3,000.

According to the Texas Almanac, Fort Bend County is among the leading cotton counties of Eastern Texas. It is a center for sugar processing, the rice industry, and petroleum processing, and produces large amounts of gas, sulphur, and oil.

The median educational level in the county was 7.5 years for males and 8.0 years for females, as reflected by the 1960 census. In the age group of 25 years and over, 3,304 had completed 1 to 4 years of school, 6,891 had completed 5 to 8 years of school, 5,596 had completed 9 to 12 years of school, and 797 had completed 4 years
of college.

The Lamar Independent School District has an estimated population of 20,000 and an area of 325 square miles. The names and population of the seven towns or communities in the district are: Rosenberg, 9,698; Richmond, 3,668; Beasley, 300; Fulshear, 200; Simonton, 180; Thompsons, 100; and Booth, 40. The eastern boundary is 15 miles west of the Houston city limits. Most of the district lies in the Brazos River valley, which crosses the district from northwest to southeast.

The school is organized on 6-2-4 basis. There is a group guidance program at all levels, with outside consultants for elementary schools and regular guidance personnel in the secondary schools. The schools have a program for the educable mentally retarded from primary level to graduation. Some subject areas are taught in high school at three levels: advanced, general, and basic.

History of Preschool Programs for Deprived Children in Lamar ISD

School Programs. In 1966 the school district operated an 8-week preschool program under Title I of ESEA. The program emphasized development of specific readiness objectives, viz., reading, mathematics, science, and social studies. The children who participated in this project were from low-income family groups. Approximately 80 percent were of Latin American heritage, and the other 20 percent were Negro. No objective evaluation of results was effected.

Community Programs. Our Lady of Guadalupe Catholic Church in Rosenberg has donated facilities for the past three years for a Head Start
Program. The program employs one full-time teacher for 17 pupils, of whom 15 are culturally deprived and 2 are above the poverty level. All are of the Latin descent. More children have registered each year than facilities could accommodate. Included in the Head Start Program is a psychological program, medical program, and parent participation. The school operates four hours per day and serves a hot lunch.

**Selected Research in Preschool Programs**

Until recently there has been very little objective evaluation of the effectiveness of preschool classes for disadvantaged children. Most of the findings to date appear to indicate that, in practice, the regular preschool readiness program does not demonstrate a significant impact on the academic preparedness of culturally deprived children.

In 1962 an experimental kindergarten program was initiated in Racine, Wisconsin, for culturally deprived children. The program was termed a "normal" kindergarten program with heavy emphasis on field trips. The findings of the study indicated that differentials between experimental and control groups "...disappeared and that in several areas the rate of growth of both groups regressed..." during first grade. (1)

Another experimental kindergarten program for culturally deprived children was started in Harrisburg, Pennsylvania, in 1963. Results of the Illinois Test of Psycholinguistic Abilities and the Peabody Picture Vocabulary Test (2) did not differ significantly for either the experimental or control groups at the end of the program.

Hartman (5) cited studies still in progress at the University of Illinois, the Institute for Developmental Studies, George Peabody College, Indiana University, U.C.L.A., and Ypsilanti. Most of these studies
proceeded on a set of assumptions quite different from those of the traditional preschool or kindergarten program. Several programs currently under way prescribe the following experimental approaches for disadvantaged children:

1. The whole or portions of the classroom program are highly structured.
2. A remedial or corrective approach (as against a developmental one) to a child's deficiencies is used.
3. The program has an intensely academic focus in whole or in part.
4. The program is either diagnostically or prescriptively based, rather than interest- or experience-oriented.
5. Concern for the child's language difficulties predominates, and it is assumed that if the child can successfully handle language (and reading) after entrance to school, many of the psychosocial problems which normally impede his progress will be alleviated.

Painter (7) reported on a study to investigate the effects of a rhythmic and sensory motor activity program on body image, perceptual motor integration, and psycholinguistic competence of kindergarten children. The twenty lowest functioning children in a normal kindergarten class were divided into an experimental and a control group. The experimental group was given a systematic rhythmic and sensory motor activity program based on nine movement areas:

1. Visual dynamics - see and move
2. Auditory dynamics - hear and move
3. Dynamic balance - balance both sides of body
4. Spatial awareness - become aware of one’s body in space as a reference point
5. Tactual dynamics - feel and move
6. Body awareness - identify and localize body parts
7. Rhythm - move to well-defined, auditory, rhythmic patterns
8. Flexibility - change tempo, movement patterns and mood
9. Unilateral and bilateral movement - move one or two sides of the body.

The carefully designed program of rhythmic and sensory motor experiences brought about significant gains in specific learnings and skills as indicated by test results of the Goodenough Draw-a-Man Test, the Illinois Test for Psycholinguistic Ability, and the Berry Geometric Form Reproduction.

Bloom, et al., (3) summarize the "Early Training Project" report of Gray and Klaus (4) as follows:

....two experimental groups of approximately 20 Negro culturally deprived children each (T1: two summers of school program and home contact for intervening year, starting at approximately age 3½; T2: one summer school program at approximately age 5) and two matched control groups. The program was aimed at improving attitudes toward achievement and aptitudes and abilities (language, perception, concept formation) considered necessary for successful school learning.

Results of pretesting and posttesting over a 15-month period showed significantly greater improvement on Binet and Peabody Picture Vocabulary Test for experimental groups than for control groups. Average IQ gain for experimental group T1 was 10.1 points (from 85.6 to 95.7) and for experimental group T2 was 5.1 points (from 91.2 to 96.3). Control Group 1 showed average decrease of 5 points (from 87.4 to 83.4) and control Group 2 showed decrease of 2.5 (from 88.0 to 85.5) over same period of time.

Based on working papers contributed by participants in the "Re-
search Conference on Education and Cultural Deprivation," Bloom, et al., (3) make the following recommendations for preschool programs for the culturally deprived:

1. Stimulation of children to perceive aspects of the world about them and to fix these aspects by the use of language
2. Development of more extended and accurate language
3. Development of a sense of mastery over aspects of the immediate environment and an enthusiasm for learning for its own sake
4. Development of thinking and reasoning and the ability to make new insights and discoveries for oneself
5. Development of purposive learning activity and the ability to attend for longer periods of time.
AREAS OF EMPHASIS

Consultations between the administration of Lamar Independent School District and the staff of Gulf Schools Supplementary Education Center resulted in agreement that, while certain readiness skills might be expected to result from the program, the overcoming of sociological and cultural deficiencies of the pupils would be the primary goal.

Language Development

With the use of the Peabody Language Development Kit the following objectives were to be promoted:

1. To build the child's vocabulary by stimulating him to
   - Name pictures of objects
   - Use these names in correct sentences
   - Identify colors

2. To stimulate associative thinking by
   - Grouping pictures of similar objects
   - Identifying their use
   - Sequencing colors and objects
   - Developing memory through use of color chips

3. To stimulate imagination and continuity in story telling by
   - Listening to stories to develop sequence concept
   - Using pictures to stimulate story ideas
   - Completing unfinished stories verbally

4. To motivate group participation by
   - Speaking with hand puppets
Group conversations

5. To stimulate oral language and verbal intelligence by emphasizing reception, expression, and conceptualization.
   - Reception is provided through the sense modalities of seeing, hearing, and feeling objects, pictures, and living things.
   - Expression is provided through the vocal and motor channels by naming these objects, pictures, and living things.

6. To emphasize understanding speech, talking, and thinking through activities that are highly motivating.

7. To provide rewarding speaking situations in order to build the child's confidence in the use of language, through
   - Liberal praise, even for minimal performance
   - Praise accompanied with rewards
   - Generally ignoring failure and refraining from criticizing behavior of the children

Psycholingual Development

Using self-concepts and interpersonal relationships as vehicles for building language facility, the following specific goals were sought:

1. To develop the concept of body image and the awareness of self as an entity, separate from others, as demonstrated by the pupil's ability to
   - Identify body parts
   - Recognize his own image
   - Learn his surname
2. To develop concepts of the relationship of the body to other objects, as demonstrated by the pupil’s ability to:
   - Distinguish between animate and inanimate objects
   - Differentiate and express body positions
   - Express these concepts verbally

3. To develop concepts of first, second, and third person, as demonstrated by the pupil’s ability to use:
   - I--you
   - We--you--they
   - He--she
   - Verbal expression of these concepts

4. To develop prepositional relationships, as demonstrated by the pupil’s ability to use:
   - On--in
   - Over--under
   - Above--below
   - Between-beside
   - Behind--before (in front of)
   - Others as indicated empirically
   - Demonstration and verbalization

**Motor Coordination**

The following objectives were sought in the development of motor skills:

1. To aid in the development of dynamic balance by teaching the
pupil how to regain his balance

2. To improve basic sensory-motor skills in order to increase abilities to perform more complex activities, as demonstrated by the pupil's ability to
   - Throw with a follow-through
   - Catch and grasp
   - Kick
   - Do somersaults
   - Bounce a ball

3. To aid in the development of visual perception through fine motor activities, as demonstrated by the pupil's ability to
   - Do line tracing
   - Sort objects
   - Cut
   - Recognize patterns

4. To improve the ability to establish and maintain rhythm patterns, as demonstrated by the pupil's ability to
   - Recognize time patterns
   - Repeat (reproduce) rhythm patterns
   - Do lummi stick exercises
   - Skip, hop, and gallop

5. To associate body movements with direction, as demonstrated by the pupil's ability to move
   - Backwards--forwards
   - Up--down
   - Right--left
Visual Perception

Differentiation of size, shapes, proportion, and distances was taught in order to achieve the following goals:

1. To develop the ability to recognize and name simple, common geometrical forms, as demonstrated by the pupil's ability to
   - Sort
   - Verbalize names
   - Generalize despite size

2. To develop concepts of like and unlike, as demonstrated by the pupil's ability to distinguish
   - Color
   - Size
   - Shape
   - Quantities

Recreation and Quiet Time

A special time block was scheduled in the program to allow the pupils time to engage in controlled recreation or rest. This permitted the child to sit quietly by himself, if he desired, or to play quietly at individual games or puzzles. This time was also used to give pupils extra individual attention. There were no developmental objectives prescribed for this time; although a selection of games was available, interest centers were provided, and teachers planned activities to reinforce the program goals stated supra.

Lunch

During the lunch period, the following goals were pursued:

1. Adequate nutrition
2. Socialization process and manners

3. Acquaintance with unfamiliar foods

**Enrichment Experiences**

The preschool program included enrichment experiences in the form of field trips, demonstrations, and exhibitions brought from outside the school. By increasing the domain of experience, this area of the program broadened the child's horizons, with the hope that the child will want to express his thoughts, and that later he will want to satisfy his curiosity through reading.
ORGANIZATION

Class Size and Location

There were twelve classes consisting of approximately twenty pupils per class (dependent upon total enrollment). The classes were located on four campuses of the district according to registration. Transfers were made as necessary to balance class size.

Class Organization

Figure 1 is a diagrammatic representation of the grouping of the classes. Approximately one-half of the pupils were taught by two teaching teams, while the remaining pupils were accommodated in self-contained classrooms.

Team Teaching. Each of the teaching teams consisted of three classroom units and two itinerant specialists. Each classroom unit served twenty pupils and was staffed by a teacher and teacher aide. The specialists conducted intensified instruction in language development and psycholinguial concepts, respectively. They served the classroom units on a schedule, working with seven to ten pupils at a time, while the classroom teacher and aide conducted alliea activities with the remainder of the class. The specialist carried out highly concentrated activities over a brief span of time, on the order of ten to fifteen minutes, while the remainder of the class was involved in related activities of a motivational and reinforcing nature.

Self-contained Classroom. Approximately one-half of the pupils were taught in six self-contained classrooms. Each of these units was
FIGURE 1

ORGANIZATIONAL, ADMINISTRATIVE, AND CONSULTATIVE SCHEMA
staffed by a teacher and teacher aide. The program was built around the areas of emphasis described supra. However, the language development and the psycholinguial programs were conducted by the classroom teacher and aide, without the assistance of itinerant specialists.

Criteria for Selection of Staff

Teachers. Teachers were selected who had demonstrated empathy with the learning difficulties manifested in Latin American and Negro primary pupils; although selection was not limited to teachers whose chief assignment or experience was with primary level children. The following personal qualities were used as guides for selection of teachers:

1. Patience growing out of emotional maturity and self-understanding
2. Demonstrated ability to work with children of minority groups without self-consciousness or an attitude of cultural superiority, i.e., a deeply felt appreciation for the right of diverse cultures to exist in the same community
3. Warmth and humanitarianism
4. Knowledge of child growth and development

The teachers selected were familiar with or could learn to function in the following areas with minimum additional training:

1. Use of Peabody Language Development Kit
2. Storytelling as a vehicle for sharpening aural facility
3. Psycholinguistic encouragement through use of large mirrors and games
4. Motor coordination activities to develop the relationship between direction and balance and rhythm

5. Developing perceptual skills in size, shape, distance, and proportion

6. Playing piano or other instrument to accompany games, dances, songs, and stories

**Team Specialists.** The selection of team specialists was based upon possession of certain professional qualifications above general certification requirements, including expertise in one of the following areas:

1. Language development; especially through the use of *Peabody Language Development Kit*

2. Psycholinguistic development

**Teacher Aides.** Aides were selected from representatives of all three ethnic groups involved, *viz.*, Negro, Latin American, and Anglo-Caucasian. In addition to possessing the personal quality traits listed for teachers, the aides needed to exhibit the following qualities:

1. Correct grammar and clear, understandable speech

2. Intelligence and motivation to learn in the preservice training sessions the objectives and general approach of the program

3. Acceptable appearance and poise

Related experience in work with Negro and Latin American children, such as in church or community welfare activities, was considered desirable.
EVALUATION

The criterion of the effectiveness of the program was improvement in the areas of emphasis described supra. Evaluation of the training process in terms of its stipulated goals required that there be measured the changes which took place during the period of the program from two standpoints of comparison:

1. Measurable differences in abilities and cultural orientation of participants between the beginning of the preschool training experience and its termination, and

2. Comparison of these differences as between pupils who were served by teaching specialists and those who were in self-contained classrooms.

Justification for short-term preschool compensatory education was examined in terms of another comparison, viz., the correlation of academic and social characteristics at the beginning of the first grade of school for those who participated and for deprived children who did not attend the preschool classes. Figure 2 depicts the relationships of the various components in the evaluation design.

There was not included in the present evaluative structure definitive provision for follow-up research to determine whether long-term effects of the program could be found. The research design nevertheless lends itself to such possibilities should the local school administration find need for the longitudinal study.

Definition of Experimental and Controlled Groups

From the parameter of 240 students who participated in the preschool
FIGURE 2
EVALUATION DESIGN

Legend

- Random Sample
- Correlation
- Comparison
- Assumed similarity of subjects, except for program results
- Wechsler Preschool and Primary Scale of Intelligence (WPPSI), Goodenough Draw-a-Man Test, and Heath Walking Fail Test
classes, i.e., 120 pupils in team-teaching classes and 120 pupils in self-contained classrooms, 75 were selected by random means from each experimental domain.

Experimental Group 1 (E1) consisted of 75 pupils who were taught by specialists in language development and psycholinguial skills, as shown in Figure 2.

Experimental Group 2 (E2) was composed of 75 pupils who were taught in self-contained classrooms.

Control Group (C) was a group of 75 culturally deprived, nonrepeater first-grade pupils who did not participate in the preschool classes.

The sampling population represented 62.5 percent of the finite population. It was thus possible to achieve stable normative estimates from the samples.

Methodology

A team of 15 counselors administered the test battery to the experimental sample groups during the first three days and again during the last week of the program. The test battery was administered to the control group at the beginning of the regular school term, 3 weeks following the end of the preschool program, as these students were identified through the normal school registration process.

Tests

Each pupil was administered the five verbal tests of the Wechsler Preschool and Primary Scale of Intelligence (WPPSI): vocabulary, information, similarities, comprehension, sentences; the Goodenough Draw-a-Man Test; and the Heath Walking Rail Test.
The major areas of emphasis were measured by one or more components of the evaluative scheme. Language development was assessed by analysis of subtest scores in vocabulary, information, comprehension, and sentences, as well as the verbal IQ. The psycholinguistic area was measured by each of these scores and by results of the similarities subtest and the Goodenough Draw-a-Man Test. The Heath Walking Rail Test provided measurement of motor development, while visual perception was not directly evaluated because of time limitation.

Assumptions

The following assumptions were necessary because the control group was not available when the experimental groups underwent pretesting and posttesting, and sufficient qualified examiners were not available after the beginning of the school year to posttest the experimental group and test the control group simultaneously.

1. Characteristics of the control group (C) were equivalent to those of the experimental groups (E1 and E2) at the time of the E1 and E2 pretest.

2. There was no significant change in C from the time of posttesting E1 and E2 until the time of testing C.

Limitation

The brief term of the study (ten weeks, including pretesting and posttesting of the E groups) may have limited the range of measured differences between the experimental groups and the control group, respectively.
Hypotheses

The evaluative design was established to measure the results of the program in light of the stated objectives.

1. The students in the preschool program gained in socio-cultural development over non-participants.

2. The students who were taught by specialists in psycholinguistic and language development improved to a greater extent than those served by the self-contained classroom organization.

Null Hypotheses

Ho1. There was no significant difference in "vocabulary" between El and E2.

Ho2. There was no significant difference in "information" between El and E2.

Ho3. There was no significant difference in "similarities" between El and E2.

Ho4. There was no significant difference in "comprehension" between El and E2.

Ho5. There was no significant difference in "sentences" between El and E2.

Ho6. There was no significant difference in body image concepts between El and E2.

Ho7. There was no significant difference in motor development between El and E2.

Ho8. There was no significant difference in verbal IQ between El and E2.
H09. There was no significant difference in "vocabulary" development between the E groups and C.

H010. There was no significant difference in "information" development between the E groups and C.

H011. There was no significant difference in "similarities" development between the E groups and C.

H012. There was no significant difference in "comprehension" development between the E groups and C.

H013. There was no significant difference in "sentences" development between the E groups and C.

H014. There was no significant difference in body image concepts development between the E groups and C.

H015. There was no significant difference in motor development between the E groups and C.

H016. There was no significant difference in verbal IQ between the E groups and C.

Methods of Procedure

Scoring. Each examiner scored each subtest of the WPPSI which he or she administered and determined the scaled scores and verbal IQ based upon normative data. The Goodenough tests were scored by one qualified examiner in order to minimize subjective variables. The results of the Heath test, administered by the classroom teacher, were recorded by her.

Tabulation. A data processing card was prepared for each child in the E and C groups, with his or her code number, group, and scores punched. Scaled scores for each Wechsler subtest, quantification of the
Goodenough results, the Heath score, and the Wechsler verbal IQ were recorded after pretest and posttest, respectively. The format of the data processing card is shown in the appendix.

**Treatment.** Comparison of El to E2 was made after each testing period. The control group was compared to El and to E2, respectively, on the posttest.

Pretest scores were analyzed differentially to determine the means of El and E2 on each variable. This established a baseline relationship from which posttest comparisons could be made.

Posttest scores for each variable were correlated to pretest scores for each child. The difference between pretest and posttest scores was then analyzed to determine whether significant change had occurred in any specific variable being measured. The mean difference in each variable in El was compared with the mean difference in each variable in E2 to see whether there was significant advantage in either organizational structure.

The mean score of each experimental group for each variable was compared with the mean score of the control group on each variable in order to find if there was significant advantage to either experimental group over the control group in any area tested.

In order to determine whether any variable was especially predictive of verbal IQ, an analysis of regression was computed on each score in each test period except verbal IQ in the pretest, using the posttest verbal IQ as the predictive variable. The verbal IQ was selected for this purpose on the assumption that it bears the greatest relationship to school achievement of all variables being tested.
DISSEMINATION

Districts throughout the nation have been challenged to develop innovative approaches to their educational problems. This preschool project represents one district's response to this challenge. The unique aspects of this program justified its widespread dissemination.

Purposes

The purposes identified as significant in the development of a dissemination pattern included:

1. Presentation of information about the program in such a form that local administrators would be able to apply their creative abilities to the development of preschool programs suited to their own community.

2. Reduction of the cost to local districts that results from duplication of planning efforts and from the necessity to search for relevant information.

3. Encouragement of local districts to seek to develop effective evaluative techniques for all aspects of their educational program.

Methods

The methods used to achieve the purposes stated above varied as the program progressed. During the planning phase the newsletter of the Gulf Schools Supplementary Education Center, T III Topics, included progress reports on the project. As requests were received from administrators, draft copies of the program were made available for limited distribution during March and April, 1967. This gave school districts an opportunity to use
this information in the planning of 1967 summer programs.

During the execution of the program, administrators from the area were encouraged to view the project in operation. News releases were prepared to keep the community informed of program activities.

Upon the conclusion of the summer program, the results of the evaluation were made available as a separate report. Members of the Center staff discussed the implications of the findings with local administrators and assisted in the application of the suitable portions to their preschool programs.

Journal articles and submission of the completed plan and the evaluation report to the School Research Information Service of Phi Delta Kappa afforded possibilities of nationwide dissemination.
BIBLIOGRAPHY


