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ABSTRACT

A learning model is designed to provide underprivileged children, aged 2 to 5, with opportunities and experiences to help develop academic skills, develop a positive self-image, develop confidence in capability to achieve, and provide essential physical necessities. Evaluation of the preschool educational system indicates that the program provides skills and traits necessary for full participation in American society and teaches children additional behaviors, values, and modes of communication with acceptance of and sensitivity to the child's home and neighborhood culture. The program begins instruction at a level consistent with the child's experiences and paces each additional step. Costs of about \$3000 per year per student are found to be balanced by benefits in affective, cognitive, and psychomotor developments. Intervention is necessary for disadvantaged children to have a reasonable opportunity to be ready for school, and intervention employing this instructional program is more effective in producing cognitive and language enhanced performance than that of conventional day care programs or public school programs serving children from the same socioeconomic and ethnic backgrounds. (LH)

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## I. INTRODUCTION

### A. What Learner Needs(s) Are Met By This Model.

1. Provide underprivileged children, ages 2 to 5, with opportunities and experiences designed to accomplish the following:
  - a. Develop academic skills.
  - b. Develop a positive self-image.
  - c. Develop confidence in capability to achieve.
  - d. Provide essential physical necessities.

A positive relationship between certain preschool experiences and success in school is generally acknowledged. The early years represent the optimum period for cognitive development and set the pattern for future development. Cognitive specialists generally agree that a child's intelligence grows as much during the first four years of life as it will grow in the next thirteen years. During this time the child "learns to learn". Inappropriate preschool experiences result in academic underachievement and cognitive disadvantage, while stimulating experiences in a child's years lay the groundwork for intellectual development and school achievement.

## II. OUTPUT DESCRIPTION

### A. What This Model Will Do.

This program establishes a 2-5 preschool educational system for under-

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privileged children, based on the following assumptions:

1. Full participation in American society requires certain skills, abilities, and traits as follows:
  - a. Preservation of pride in one's culture;
  - b. Ability to use and understand standard English;
  - c. Ability to think and reason abstractly;
  - d. Ability to use language as a tool of thought;
  - e. Knowledge of certain basic content areas;
  - f. Positive self-concept;
  - g. Ability to relate well to others, and a willingness to share;
  - h. Flexibility to participate as a member of a group as well as to assume the role of leader.
2. The preschool age is vitally important in the development of the above skills, abilities, and traits.
3. A program designed to teach children additional behaviors, values, and modes of communication must be especially sensitive to the home and the neighborhood culture of the child and must accept those cultural aspects which the child brings to school.
4. The program must begin all instruction at a level consistent with the child's experiences and carefully pace each additional step.

B. Documentation That Confirms These Accomplishments.

Evaluation of the Central Cities Early Childhood Program was designed by the Southwest Educational Development Laboratory at Austin, Texas, and the statistical analysis was done there. A series of tests was administered to the pupils at the Center and to pupils at several comparison sites. Thirty hypotheses were tested the first year, and condensed to nine related evaluation

questions during the second year. Detailed findings and conclusions have been provided in two annual evaluation reports, September, 1968, through July, 1969, and September, 1969, through July, 1970. A third report is due from the Southwest Lab., but has not yet been received.

1. Growth Of Children In The First Year's Operation. At entry into the program, neither the children in the experimental program nor the comparable children in day care centers used for "controls" for the program had achieved a level of development expected of middle class children. During the seven months between the pre-test and the post-test in the first year, however, the Project pupils gained 10 mean points on the Slosson Intelligence Test and the distribution approached a normal curve on the second testing. The children also gained 8.7 I.Q. points as measured by the Peabody, which supported the results of the Slosson administrations. Children at the day care centers obtained no measurable gain on the Slosson, and achieved a gain of 4.4 I.Q. points on the Peabody.

Mean gains of the Experimentals were inversely related to age, and the three-year-olds gained almost twice the mean gain of the four-year-olds, which seems to indicate the need for early intervention for disadvantaged children.

All ability groups made significant gains on the Slosson, but the gains were inversely related to initial mental levels. High ability pupils gained significantly less (4.7 I.Q. points) than did the medium ability group (10.3 I.Q. points) and the low ability group (16.3 I.Q. points). After prescriptive treatment in the classroom, 40 children identified as having "learning disabilities" achieved a mean score gain on the Slosson of twelve I.Q. points.

2. Second Year Gains In Terms Of The Evaluation Questions.

- a. Initial Difference In Level Of Development. Testing on the Slosson showed that the culturally different and economically disadvantaged children of the project, ages two through five, had a different level of development from middle class children of these ages. With no history of previous intervention, these children are from one-half to one full standard deviation below national norms. A possible exception was with two-year-olds, where it was possible to secure valid tests on only a small sample of children. By contrast, children who had received one year of intervention in the Central Cities Project, were at or above national norms on the Slosson.
- b. Gains Achieved By Experimental Pupils. Significant I.Q. gains were achieved during the second year by pupils new to the program. The mean gain for two-year-olds was 10.1 I.Q. points, and for three-year-olds the mean gain was 9.9 I.Q. points as measured by the Slosson. Pupils continuing in the program maintained previous gains, but did not attain major new gains.

The age five Experimentals had statistically significant gains on all three subscales of the Caldwell during the second year, thus demonstrating improved performance in terms of personal-social responsiveness, associative vocabulary, concept activation-numerical, and concept activation-sensory. The Auditory Test of Language, substituted for the Peabody during the second year, showed significant mean score gains for both experimental and special education pupils.

The Preschool Attainment Record, a teacher rating scale,

showed high scores for project pupils on both the pre-test and post-test. Raw score gains were achieved by all age levels. However, when these scores were converted to attainment quotients (AQ), each age group suffered losses in AQ scores in physical and social development. A normal regression toward the mean probably accounts for a substantial part of the "loss". A halo effect may have influenced teacher ratings in the pre-testing.

Special education pupils in the program considerably improved articulation of consonants, as measured on the Goldman Fistoe. They also improved in performance on the eye-motor subscale of the Frostig. Other differences were not significant.

Local project research, using the ITPA with a sample of 25 children, showed a composite mean gain in psycholinguistic age of 12.6 months during an 8-month period. Nineteen of the twenty-five children made statistically significant gains.

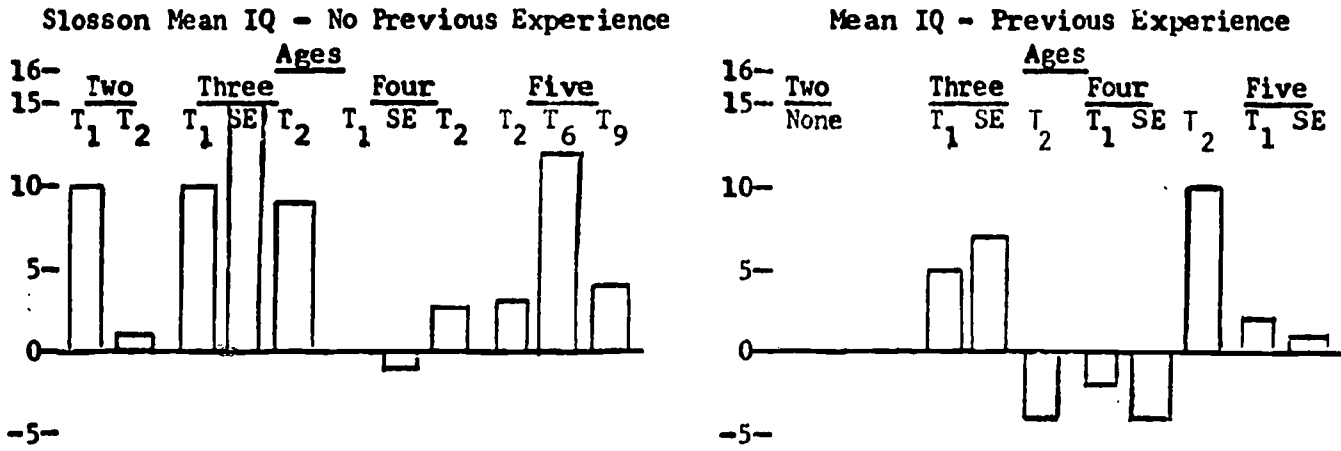
- c. Experimental Versus Comparison Groups. One assessment of the treatment received by the experimental group is whether there was a difference in post-test performance of these children as compared with the performance of children, otherwise comparable, whose treatment was different. The experimental program, when applied to pupils who had not previously received intervention, caused these pupils to achieve a substantially greater, but not statistically significant, gain than the programs used with day care children at ages two, three, and four. At age five, the experimental program produced higher performance than both the private day care

12  
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1

group and the target area public school kindergarten. A middle class (TCU area) public school kindergarten achieved a higher performance, as would be expected. In the development of auditory ability, the Central Cities program exceeded all other programs (except the TCU area). These results were significant in terms of results predicted from the Slosson, but not when predicted from pre-test scores.

- d. Gains Of Younger Versus Older Experimentals. Pupils of younger ages tended to achieve greater gains on intelligence measures, auditory measures, and physical-social development measures. In effect, the delay of intervention from age two to a higher age appeared to result in a lower initial I.Q. when intervention did occur, and smaller gains in I.Q. were likely to be achieved. Similar results were found with the auditory measure, with the exception of day care pupils. For the Preschool Attainment Record (physical-social), the pattern largely conformed to this situation. In 1968-69, mean gains of the Experimentals were inversely related to age, and the three-year-olds gained almost twice the mean gain of the four-year-olds (12.1 to 6.6 I.Q., Slosson). On the PAR increased age resulted in progressively lower gains. (See Figures 1 and 2.)
- e. Gains Of Experimentals With Preceding Siblings. When Experimentals were separated into two groups based on whether or not they had been preceded in the program by older siblings, analysis indicated that those with preceding siblings had higher post-test performance in intellectual development but not in language or physical and social development. Sibling

FIGURE 1.  
AMOUNT OF GAIN OR LOSS BY COMPARISON  
GROUPS BY AGES



T<sub>1</sub> = Experimental

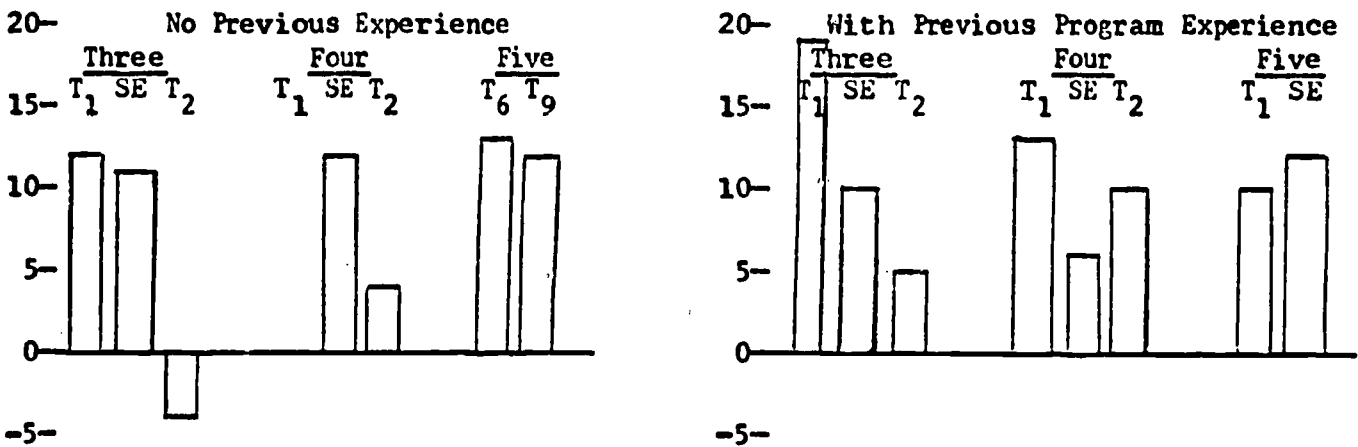
SE = Special Education

T<sub>2</sub> = Day Care Pupils

T<sub>6</sub> = Texas Christian Univ. Area School

T<sub>9</sub> = Target Area Kindergarten

FIGURE 2.  
MEAN RAW SCORE - GAIN OR LOSS - AUDITORY TEST OF LANGUAGE





status made no difference in post-test performance of special education pupils, and seemed to be of little advantage to the experimental child. Sufficient time had not elapsed to adequately determine the effect, however, and help for parents and older brothers and sisters in working with younger children may maximize the possibility of gain.

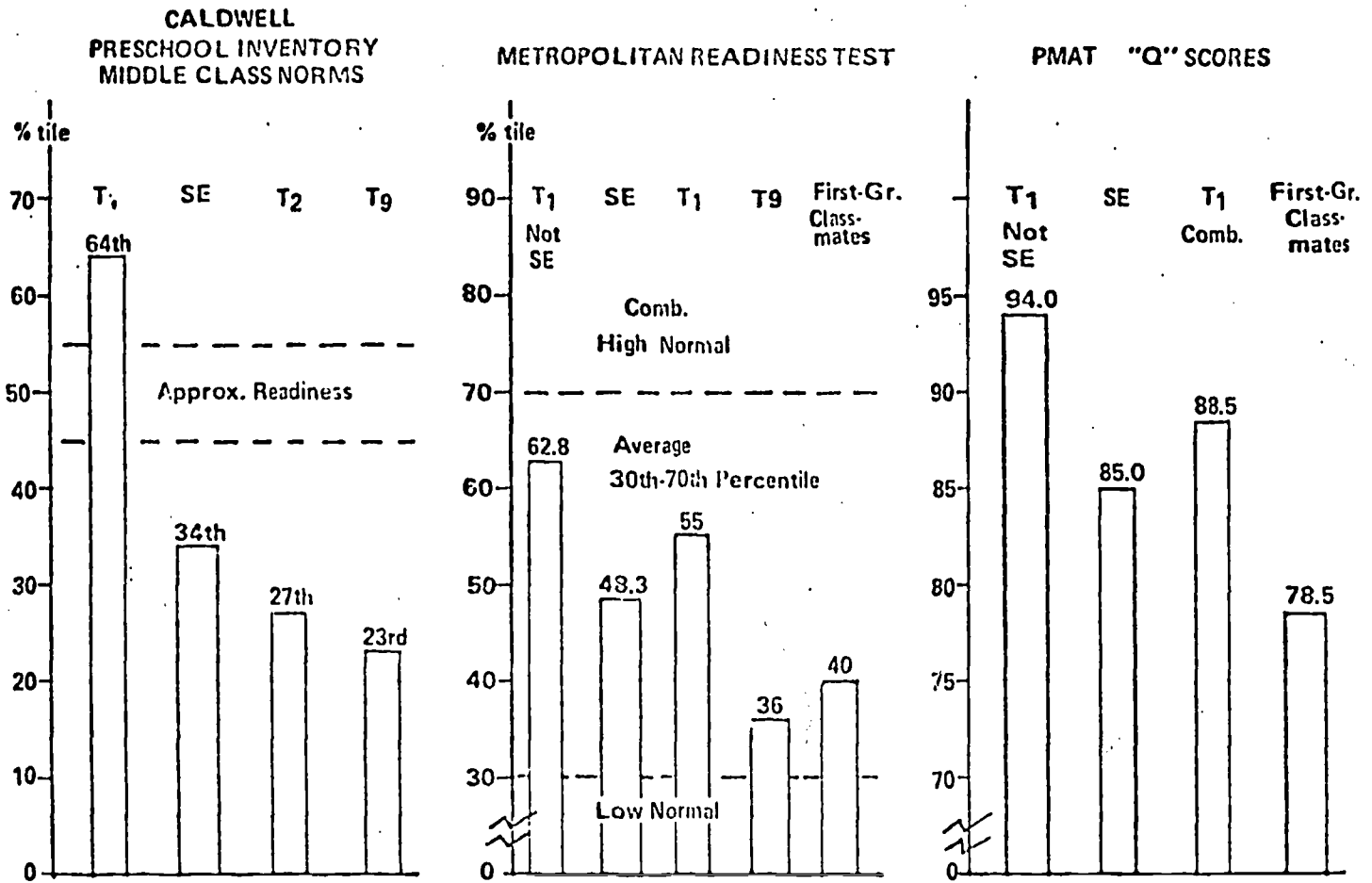
f. Readiness of "Graduating" Experimentals for Entry into School.

The Caldwell Preschool Inventory was administered to five-year-old pupils in the Experimental, private day care, and target area kindergarten programs. On all three subscales and on the aggregate of the Caldwell, the Experimentals scored above the 50th percentile on middle-class norms established by the author. The special education pupils were less successful, but their mean score was above that usually expected for pupils of this background. The extremely wide range of scores on the Caldwell indicates that some experimentals and special education pupils are not yet ready for first grade in regular school. (See Figure 3.)

Data from tests administered by Fort Worth District teachers to entering first grade pupils from the target area, including pupils with two years of experience in the Central Cities Project, show that these "graduates" are ready when measured by scores on the Metropolitan Readiness Test or the Primary Mental Abilities Test, and that their state of readiness considerably exceeds that of their classmates who did not participate in the Central Cities program.

g. h. i. Performance on Other Variables. The experimental and special education pupils were also analyzed according to teacher scores

**FIGURE 3.**  
**READINESS OF GRADUATING FIVE-YEAR-OLD EXPERIMENTALS AND OTHER**  
**FIRST-GRADE PUPILS IN TARGET AREA ELEMENTARY SCHOOLS**



on the Minnesota Teacher Attitude Inventory, pupil attendance, and level of mother's education. The analyses indicated that teachers who were more authoritarian appeared to be associated with higher gains in I.Q. development of their pupils. There was no apparent difference in the development of language ability.

When pupils were divided into numerically equal groups by level of attendance, there seemed to be no significant difference in language development or growth in I.Q. scores. This, perhaps, was because the actual difference in attendance between the two groups was not great.

The pupils were again divided numerically on the basis of the level of education attained by the mothers of the pupils. There was no significant difference in performance of the children, although the initial I.Q. of the children showed a difference according to the mother's educational level.

### III. INPUT DESCRIPTION

#### A. What Are The Costs?

Costs were approximately \$3,000 per year per student during Title III funding for the experimental development period. These costs include a component for curriculum development, for staff development, for parent involvement, and for research. Fees for consultant service for the Southwest Educational Development Laboratory are also included. In order to validate the curriculum, there was a high proportion of adults to children.

In its operational stage, without Title III funds except for field-testing, the project is serving four-year-olds at an approximate cost of

\$800 per year per student. One head teacher and two supervising teachers now work with twenty-seven paraprofessionals and 286 children. Each supervising teacher administers one floor and has two aides per classroom under his supervision. The head teacher is the instructional leader and is responsible for the administration of the center. Experimentally, there were ten teachers and 40 aids for 182 children.

Unexpended Title III funds have been authorized for field-testing curriculum materials developed during the experimental period and for some follow-up research. John Barnett, the project director, believes that the operational project, whose costs have been assumed by the District using other funds, will be as successful in terms of the achievement of the children. Factors which support this conclusion are the well-trained staff, the emphasis upon continued staff development, the structured curriculum developed during the experimental phase of the project which makes possible the use of paraprofessionals, and the continuing support of the Fort Worth school district administration.

In addition to the educational value of this project to the children, certain of their physical needs are included in the program. The children are fed breakfast, snacks during the day, and lunch, and they receive medical and dental care while they are involved with the project. Emphasis has been placed upon blood testing and the early detection of sickle cell anemia.

#### IV. BENEFIT - COST RATIOS

##### A. Documentation Of The Relationship Between the Model's Cost and Benefits (Effectiveness).

Because the major expenditures during the experimental period were for curriculum development and experimentation, a cost-benefit analysis for

students would be very difficult to determine. At the \$800 per year figure for the implementation phase of the project, and in comparison with a nationally accepted figure of \$1,500 per year for day care, if results are maintained it would seem that a high ratio of benefit to cost would be established.

Using the experimental phase results of a mental age gain of 10.1 months together with the operational phase costs of \$800 per pupil per year, the following ratio can be calculated:

$$\frac{\text{Benefits}}{\text{Costs}} = \frac{10.1 \text{ months gain MA} \times 286 \text{ pupils (1000)}}{286 \text{ pupils} \times \$800/\text{yr.}} = 38.8$$

## V. MODEL DESCRIPTION

### A. Narrative Description Of The Model For Diffusion.

The program promises to establish a sequentially-planned instructional program, adult-child interaction, guided peer-group interaction, and nutritional and health services for underprivileged children. It promises to improve the performance of children in the areas of cognitive, psychomotor and affective realms over children of comparable age and socio-economic status who receive training in day-care centers.

#### 1. Affective Development:

Through this program children exhibit a positive self-concept as evidenced by changes in their school adjustment, interest, attitudes, and values. They display desired emotional responses, an understanding of likenesses and differences in people, a greater capacity to share, and take turns in speaking and listening.

#### 2. Cognitive Development:

As a result of the structured learning and training in the cognitive realm, the children demonstrate the ability to recall

knowledge, to solve problems, and to think creatively. They exhibit significant gains in vocabulary development, creative thinking, and ability to solve problems.

3. Psychomotor Development:

As a result of the sequentially planned learning activities, the children develop fine motor skills and demonstrate improved auditory and visual discrimination.

4. Parental Involvement Objectives:

The children of parents who assume an active role in the parental involvement program achieve greater gains on norm-referenced instruments and demonstrate greater performance on criterion referenced tests than children of parents who assume a less active role.

B. Graphic Description Of The Model For Purpose of Diffusion.

A graphic description of the model is presented in Figure 4.

## VI. PERFORMANCE DESCRIPTION

A. Performance Details Of This Model.

The findings and conclusions from evaluations of the Central Cities Project indicate the following:

1. Test results demonstrated in 1968-69 and again in 1969-70 that intervention is essential if disadvantaged children are to have a reasonable opportunity to be ready for school.
2. These children can be given necessary language and cognitive skills and show significant improvement in attainment levels on instruments measuring these skills.
3. Intervention employing the Central Cities Instructional program is more effective in producing cognitive and language enhanced per-

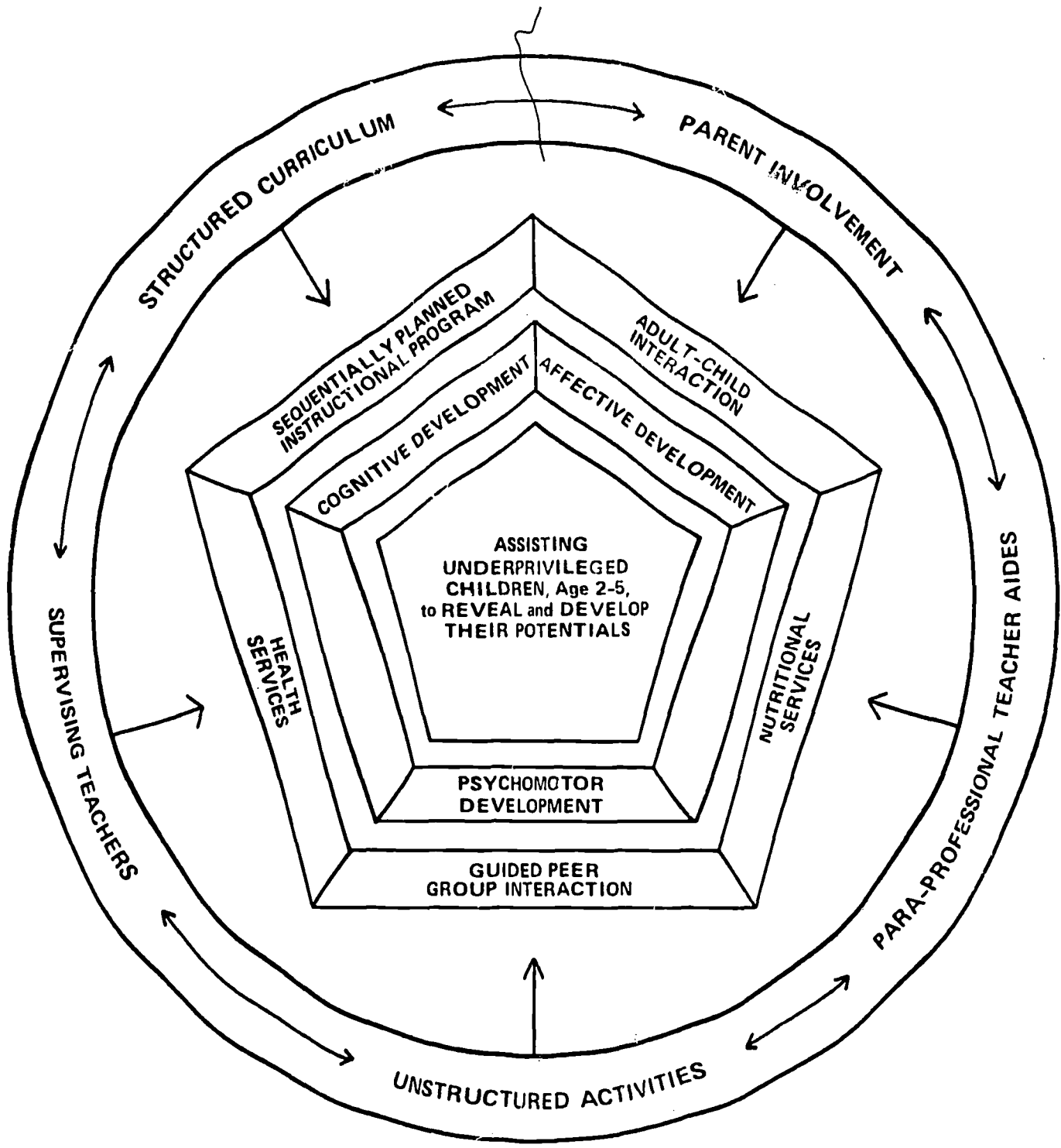


Figure 4. GRAPHIC MODEL OF THE FORT WORTH CENTRAL CITIES EDUCATIONAL DEVELOPMENT CENTER

formance than that of conventional day care programs or public school programs serving children from the same socio-economic and ethnic backgrounds.

4. Greater performance improvement is achieved in cognitive and language skills by children of age three than by those of age four, and by those of age four than by those of age five. Moreover, improvements achieved at the earlier ages are retained by the pupils as they continue in the program - at least through age five.
5. The program appears to work equally well for Experimental pupils and for Special Education Experimental pupils. However, there is a tendency to benefit from assignment of more authoritarian teachers, as compared to more permissive teachers, if expected test performance is the appropriate measure.
6. Results obtained from testing with the Caldwell Preschool Inventory, the Metropolitan Readiness Test, and the Primary Mental Abilities Test, suggest that most "graduating" five-year-old pupils were ready for the first grade in terms of middle class norms. Follow-up studies on Experimental pupils (and their classmates) should be made for the next several years to determine the extent to which the enhanced performance demonstrated in the tests used in the Early Childhood program continue to demonstrate beneficial effects on the child's school performance.
7. Results with the special education pupils reported in 1968-69 were impressive. In 1969-70 continued work with special education pupils demonstrated further the value of this diagnostic and prescriptive intervention program. While the mean scores and mean gains of these groups are unlikely to surpass those of children not thus handicapped, the effects can be expected to raise these children into normal levels of performance and readiness.



The curriculum developed was based on demonstrated needs and deficiencies of the pupils. It is highly structured, and makes reasonably certain that students do not miss skills necessary to success in school. Pupils are taught in small groups of five or six students and each pupil has four lessons during the day in language (both structured and unstructured), auditory skills, visual skills, and motor development. At the end of each lesson and each unit, children are evaluated on their learning. Students who have not achieved the expected learnings have individual prescriptions for remediation. With two adults in the classroom, and with other available personnel, children not engaged in the structured activity pursue other interests. There is also attention to music, movement, and art.

In this project, the location of the center, in the space that was available, determined the parental involvement activities which were used. Because the target area did not have transportation to the project site located on the periphery of the area, and because families were too poor to have transportation of their own, it was not easy to have large groups of parents continuously present at the center. Parent study discussion groups were organized in the elementary schools in the target area, night classes were offered in the neighborhood and were well attended, and parents were rotated into the center by bus for visits during the year. The question of centralized or decentralized programs must often be resolved on the basis of what facilities are available. The possibility that a better program for children and more adequate staff development can occur with a centralized facility is real, even though opportunity for access by parents is less available.

## VII. PROCESS DESCRIPTION

### A. How The Model Accomplishes Its Mission.

#### 1. Structured Activities:

The written curriculum for the Fort Worth Central Cities Project deals almost exclusively with the structured school day. This does not mean that unstructured activities are considered to be unimportant or less important. The program is, however, committed to the conclusions made by Bissel (1970) and Di Lorenzo (1969):

- a. Programs emphasizing general objectives of cognitive growth and language development, with teacher direction of highly structured experiences were the most effective in producing cognitive growth.
- b. Programs with a high degree of quality control, well trained staff and much supervision, and low pupil-teacher ratio were the most effective.
- c. Highly structured programs were more effective with more disadvantaged children and non-directive less structured programs were more effective with the less disadvantaged of the lower-class children.

Diagnosis, behavioral objectives, suggested procedures and materials, and evaluation strategies are recommended for each lesson. Most lessons are designed to be taught in brief (approximately 15 minute) periods, four times during the 10 - 11 hour day. The teacher is provided with guidelines for these structured lessons. During the experimental period, teachers were required to follow the lesson exactly for proper validation of the curriculum.

In the implementation for four-year-olds which is now operational,

teachers have leeway to study individual children to determine the appropriateness of materials and strategies. Paraprofessionals are more successful in their work with children if a rather high structure exists.

## 2. Unstructured Activities:

The bulk of the Central Cities school day is filled with relatively unstructured activities characterized by flexible, but planned, teacher involvement. This includes the period during children's arrival, breakfast, extended language, free play, learning center activities, snack time, rest, lunch, naptime, planning period, outdoor activity, and departure time. The school day (and the facilities and equipment) are very similar to the common nursery or kindergarten. However, major additions are health care, systematic staff development, parental involvement, planned teacher questioning to broaden language and concepts, and deliberate efforts to extend and reinforce learnings from the structured lessons.

## 3. Training Areas:

The scope and sequence reflect four specific training or skill areas: auditory, visual, motor, and language. These areas were selected through research done on the needs of disadvantaged preschool children and intensive staff observations of the children. These four areas represented the greatest deficiencies.

Auditory Training Levels Include: perception, localization, discrimination, and memory.

Visual Training Levels Include: perception and memory.

The Motor Training Levels Are: gross motor, sensory-motor integration, and fine motor.

The Levels Of Structured Language Training Are: phonology and syntax.

The Levels Of Unstructured Language Training Are: labeling, describing, and elaborating.

4. Unit Structure:

Lesson activities are organized into instructional units which determine the conceptual content. There are approximately 20 units for a 140-day period. The remaining time is utilized for testing, re-teaching and re-testing.

Unit selection was determined by the relevancy of subject matter to the child's background. The units are ordered on a developmental pattern, beginning with an initial introduction to school, followed by units focusing on self-awareness, family, home, and neighborhood, and then proceeding to the extended environment. The concepts and skills inherent in these areas of study are reviewed and extended as specific units are revisited during the year.

Basically, a unit contains lessons built around one topic. In a few instances, lessons are included as an integral part of the unit but will not relate directly to the unit topic. All lessons, however, reflect vertical sequencing, i.e., the lessons are presented according to difficulty beginning with the lowest order of skill competencies. (See Unit Topic's List - Figure 5.)

5. Scheduling:

The daily schedule is designed to provide for large group activities, small group interaction, and independent activities. Structured lesson periods require small group interaction, consisting of five or six children per group. The number of children per class ranges from 15 to 18, making a division of three instructional groups feasible. These three groups are cycled through alternating periods of direct instruction and independent activities. Each period is

FIGURE 5.  
UNIT TOPICS

UNIT NUMBER	LEVELS			
	A	B	C	D
I	SCHOOL ORIENTATION	SCHOOL ORIENTATION	SCHOOL ORIENTATION	SCHOOL ORIENTATION
II	SELF-AWARENESS	SELF-AWARENESS	SELF-AWARENESS	SCHOOL
III	FAMILY	FAMILY	SCHOOL PROCESS	SELF-AWARENESS
IV	FOOD	FOOD	FAMILY	FAMILY
V	CLOTHING	CLOTHING	HOME	CLOTHING-SHELTER
VI	HOME	ANIMALS:PETS	ANIMALS:PETS	FURNITURE
VII	ANIMALS:PETS	TOYS	FOOD	COMMUNITY WORKERS
VIII	TOYS	COMMUNITY HELPERS	CLOTHING	TOYS
IX	SELF-AWARENESS	BUILDINGS	TOYS	FOOD
X	COMMUNITY HELPERS	ANIMALS:FARM	SELF-AWARENESS	ANIMALS:FARM
XI	FAMILY	FOOD	ANIMALS:FARM	SELF-AWARENESS
XII	VEHICLES	VEHICLES	COMMUNITY WORKERS	BUILDINGS
XIII	CLOTHING	SELF-AWARENESS	BUILDINGS	VEHICLES
XIV	COMMUNITY HELPERS	FAMILY	FAMILY	TOOLS
XV	FOOD:GROCER	HOME	VEHICLES	FARM
XVI	HOME:FURNITURE	CLOTHING	TOOLS	MONEY
XVII	ANIMALS:FARM	COMMUNITY HELPERS	COMMUNITY WORKERS	ANIMALS:ZOO
XVIII	ANIMALS:ZOO	ANIMALS:ZOO	ANIMALS:ZOO	FAMILY
XIX	FOOD	SELF-AWARENESS	SELF-AWARENESS	SELF-AWARENESS
XX	FAMILY	REVIEW	KINDERGARTEN READINESS	SCHOOL READINESS
XXI	SELF-AWARENESS			

concerned simultaneously with process, content, and attitudes.

SCHEDULE

7:00	Children's arrival
7:15	Extended language
7:30	Breakfast
8:00	Extended language/free play/ learning centers
8:30	Structured lessons
9:40	Snack, restroom, rest
10:15	Outdoor activities
11:00	Structured lessons
12:00	Lunch and nap
12:40	Planning period
2:30	Snack
2:45	Structured lessons
4:00	Outdoor activities
4:35	Extended language/free play/ learning centers
5:30	Departure.

6. Instruction and Evaluation:

During the experimental period the teacher completed a lesson evaluation form (Teacher Check Sheet) after each lesson was taught. Her appraisal of the lesson sequence and content was given. Curriculum writers and other staff personnel observed lessons being taught and completed a corresponding Observer Check Sheet.

The teacher still administers unit test upon completion of each unit to determine the extent of learning retention over a span of lessons. The unit test samples the performance items on a parti-

cular series of lessons that have been recently taught. The results of the tests provide additional criteria to aid the teacher in determining performance levels of children.

Criterion mastery tests are administered after a series of five units. These tests sample an even larger selection of lessons. Recommendations based on the check sheets, verbal interaction with the teachers and teacher assistants, and the results of the unit and mastery tests form the basis for field testing, revision and refinement of the lessons.

7. Parent Involvement:

The adult vocational night classes serve two purposes: (1) they are designed to up-grade the skills of parents which will, directly and indirectly, benefit the child immediately and in the future; and (2) they provide organized groups of target area and Center parents for monthly meetings to hear speakers and to have discussions and interaction meetings that provide information to reinforce and enhance knowledge and understanding of child-rearing practices. Rotation into the Center during the day did not work as well since the Center is remote from the homes of the target families and many parents worked.

Over an eight-month period, the following activities for the parents were planned to complement and enhance the program for the children.

October	Getting Acquainted with Parents Film - "Characteristics of Children"
November	Lesson Demonstrations - Using Children
December	Selecting Educational Toys and How to Use Them to Develop Concepts
January	Slides of Center Children - Their Progress and Their Needs

February	Discussion with Each Individual Parent about His Child (While Other Parents Involve Themselves in Making Specific Toys or Other Resource Materials)
March	Group Discussion - Each Parent Tells How He Works with His Child
April	Film - To Be Selected
May	Group Discussion - Where Do We Go from Here?

At each classroom meeting the teacher presents the parents with a list of concepts and skills that have been previously taught. In addition, parents are given a list of specific activities recommended to extend and reinforce the concepts and skills.

#### VIII. MATERIALS, EQUIPMENT AND STAFF

##### A. Materials And Equipment.

To adopt this program it will be necessary to obtain five Curriculum Guides for Early Childhood Education A through D, and a Special Education Curriculum Guide for Early Childhood Education. These give the step-by-step process that should be used in the classroom with the children as a group.

##### 1. From Where?

Fort Worth Central Cities Education Development Center  
3210 West Lancaster  
Fort Worth, Texas 76107

##### 2. How Rapidly Can They Be Delivered?

At present, guides are limited to field testing or those authorized to use the model. They should be available for general use in the fall of 1972.

##### 3. How Good Are They?

The whole program centers around the Curriculum Guides, and they are crucial to the use of any adopting school system.



4. What Do They Cost?

The prices on the Curriculum Guides and other written materials of the project are not yet determined and are not otherwise available by the project. This would be a top priority of the project if the necessary funds were made available to the project to accomplish this.

5. What Substitutes Can Be Used?

The adopting school system should obtain copies of these Curriculum Guides and scan the lists of materials in each of the units. Each unit in the curriculum guides had a materials list including both commercial and household items. Most of the materials used in the program are normally used in kindergartens and can be obtained commercially.

B. An Existing Staff's Handling This Model.

It is apparent that the size and quality of the staff is open for experimentation and determination by the adopting community. Inservice for use of the guides should be provided.

C. Requirements For Special Personnel.

As indicated previously, implementation is being accomplished with 1 head teacher, two supervising teachers, and 27 paraprofessionals for 282 children.

IX. MANAGEMENT

A. Management That Is Advantageous.

The evaluation of the program's management will be accurately accomplished after the first year the program operates without the Title III funds it had during the prior three years. During the project years, there was an abundance

of staff. Now it is operating with the aid of lay personnel. Mr. John Barnett predicts that it will operate smoothly and effectively. For the experimental model, see Figure 6. For the operational model see Figure 7.

A comparison of present and past staffing indicates that the positions during the project years were necessary to enable the project to accomplish its goals. For example, the staff included six writers that were necessary to produce all the curriculum guides and other materials and publications. Parental involvement will be maintained at the highest possible level within the present funding. It will be necessary to discontinue the night vocational classes because of lack of funds.

#### X. IMPLEMENTATION INFORMATION

##### A. Evidence Of Successful Transplants.

The target children have needs that are not extraordinary to those of like children in other parts of the country. The materials and facilities are such that they are either on hand or readily obtainable if the necessary funds and personnel are available.

Through the tremendous effort of John Barnett and his staff, future installations of the program will be much easier, and adopters of the program will have a great deal to draw from in determining what kinds of things to attempt and to avoid. The same model based on paraprofessionals is being implemented in a ghetto area of Galveston, Texas.

##### B. Modifications.

The idea of a center could be changed so that the program could be developed wherever space is available. Cooperation and aid of churches, parents, fraternities and other organizations could be obtained. Parents should be

FIGURE 6.

Administration and Staff: Project Years

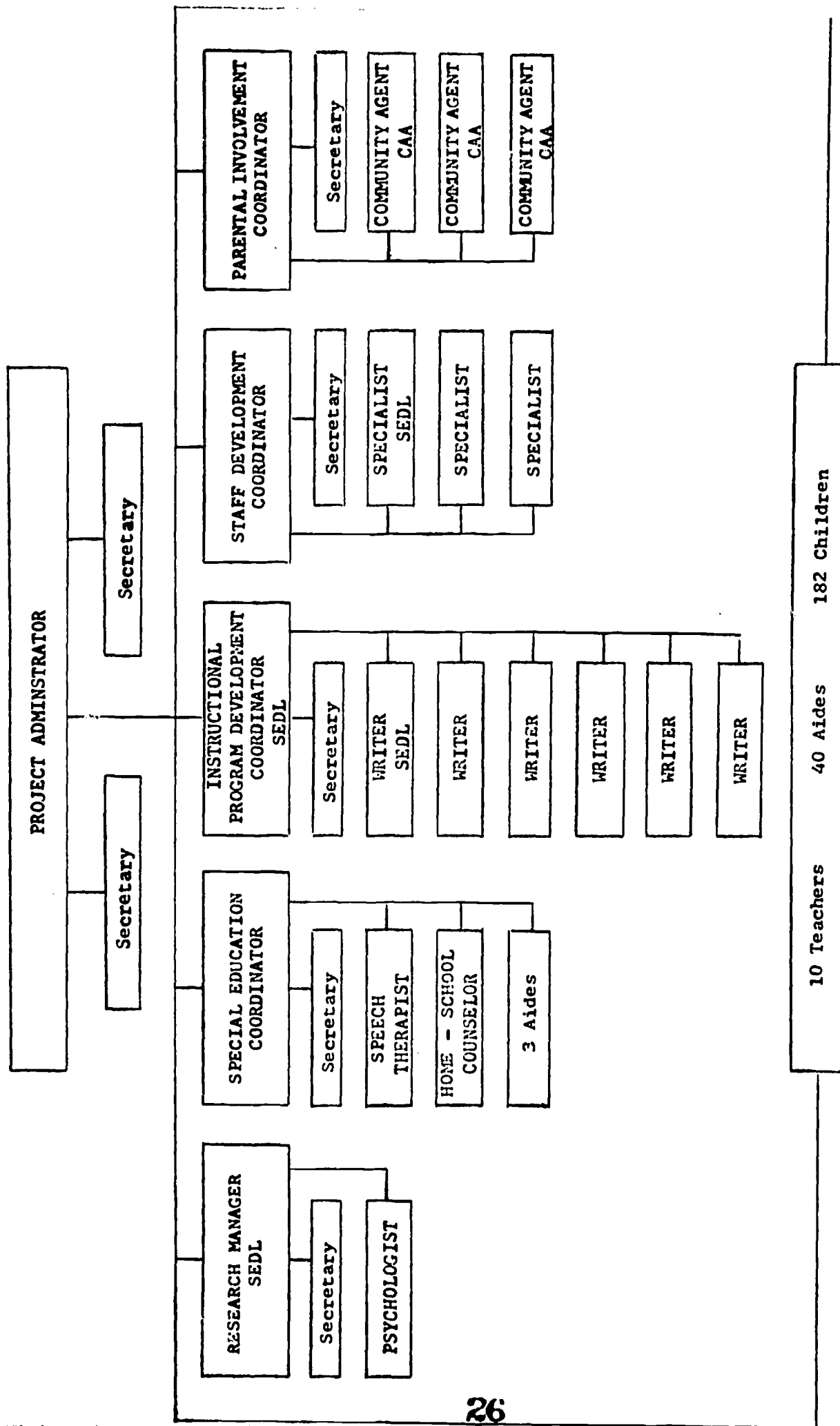
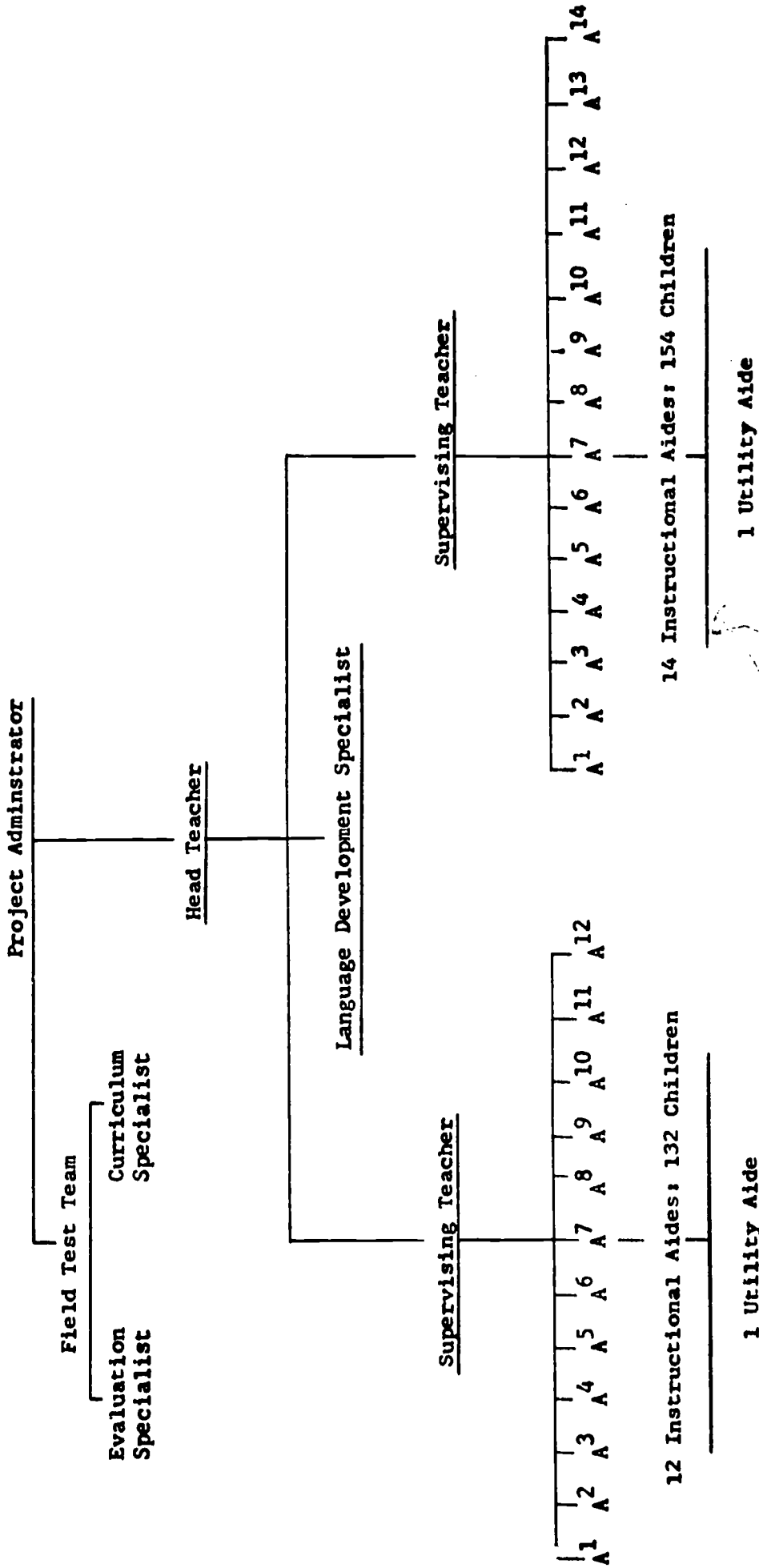


FIGURE 7.

Administration and Staff, Post Project Year



included in the planning and development of the project, as was done in this situation.

C. Things To Avoid.

The strict view-point of a "center" as such should be avoided. This program need not be confined to the "four walls" of a building. It is the type of a project that might work better where the people are. This particular center was located at a remote area, and it was necessary to bus the children in, an added expense. Also, many parents were not able or willing to come to the center to become personally involved. An attempt was made to bus the parents in at night as well as during the day because the staff believed that parents still have the greatest influence on the child's permanent development. Once again, the physical plant situation in an adopting district will determine the project housing.

D. Suggested Steps To follow.

1. The first step should be an assessment of the need for such a project in the community. It should first be determined how many children are underprivileged. However, not only underprivileged children are able to benefit from such a program. If the purpose for adopting this program is the improvement of all children, then the target assessment would be the whole population. Limits ought to be prescribed and determined.
2. An assessment of the school system ought to be made. It should be determined whether there are facilities in which to carry on such a center in a practical locality, and whether or not there are funds to spend for additional salaries of project directors, teachers' aides, cooks, secretaries, janitors, curriculum special-

ists and other professional personnel. All of the materials used will have to be obtained specifically for the center and will constitute an expansion of the budget.

3. A realistic time table should be established, and planning should provide for appropriate orientation, consultant input, selection of an interested staff and training. It is suggested that Mr. John Barnett be hired to give direction and training wherever possible. Correspondence with the Fort Worth Project staff pertaining to the various elements of the program is recommended.
4. Early in the program, Curriculum Guides should be obtained from the Central Cities Educational Development Center. These will help in the training program, will offer a measurement of the necessary materials, and serve well as instructional guides.
5. Wherever possible, the teachers of the new program should visit the Fort Worth Center and spend a few days observing the program as it operates, and a staff exchange for a period of time would be advisable.

E. Phasing In The Model.

There is a natural opportunity here to phase in this program. The first group may be brought in at age three and developed on the next year, and then a new age three group started the next year. As each group moves to higher levels, the program should move to a more complex stage in its development. Phasing may also be done by size. That is, a small number of children may be involved in the program and this number gradually increased.

F. Adopting Parts Of The Model.

An adopting school may decide to develop only one age group, or it may

attempt to develop the whole spectrum of ages two through five. The adopting school may choose to include the parents or not, depending upon costs and logistics problems.

The Curriculum Guides are written and divided in levels from A to D, thus there is a natural division of alternatives as to how far to extend the program. Special education children may be taught separately or with the other children, or the special education aspect may be included or dropped.

G. Required Staffing And Inservice Training.

In the beginning and during the project, staff members had the benefit of special consultants and summer seminars which trained the staff to detect certain characteristics of youngsters at very early ages. Also, a team study and training program took place during the children's rest periods, (approximately 1 1/2 to 2 hours). At present, this time is used by the supervising teacher to meet with her aides to help them analyze the special problems they are facing in each classroom. During this time the aides go over the planned activities and procedures to follow in conducting the educational experiences set forth in the instructional guides. The experience, interest and background of the staff must be assessed. Continuous inservice for staff development is vital.