This report describes in detail a performance objective curriculum designed to help disadvantaged prekindergarten and kindergarten urban children attain the skills required to be at grade level in reading and mathematics and at the national norm in I.Q. by grade 1. The program is designed to systematically develop students' skills in 10 critical areas: listening, naming, observing, speaking, perceptual motor skills, writing and motor skills, classification, mathematics, decoding-encoding, and seriation. The essential components of the program are: (1) use of the performance objectives for individual and group instruction and as an evaluation tool, (2) forty-five minutes per day small group reading program with students grouped homogeneously according to achievement test scores, and (3) volunteer parent program which includes a parent committee and volunteer parents to assist teachers. The evaluation design and results comprise one-third of the report. (CS)
The development of the Dale Avenue Project was a cooperative effort of the Paterson Board of Education and the Office of Program Development, Division of Research, Planning, and Evaluation, New Jersey State Department of Education.

In 1973 the Dale Avenue Project was validated by the standards and guidelines of the United States Office of Education as innovative, successful, cost-effective, and exportable. As a result the Dale Avenue School is now funded as a demonstration site to offer New Jersey educators the opportunity to see the program in action, examine its materials, and receive training in its replication. This final report was prepared as part of the project's dissemination program.

The development and dissemination of the project has been funded through the New Jersey Elementary and Secondary Act, Title III program.

The Dale Avenue Title III staff would like to thank all of the parents, classroom teachers, administrators, specialists, paraprofessionals, custodial and clerical staff for their many contributions to the well being and growth of the children of the Dale Avenue School.

This manual was written by Rita Gavzy, Researcher, Dale Avenue Title III Project.


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The Dale Avenue Early Childhood Education Project had its roots in the assessed needs of our Title I Prekindergarten program. Evaluations of existing curricula did not uncover an adequate curriculum for urban children. Our only solution was to develop our own curriculum through Title III funds.

A cooperative effort was exercised involving parents, community, paraprofessionals, teachers, administrators, the Board of Education and the New Jersey State Department of Education. The result was the Dale Avenue Performance Objectives - a product which continues to prove its worth for urban children wherever it is used.

Thanks to all who contributed.

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Paterson, Board of Education
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Table of Contents

Synopsis ............................................. 8
Need for an Early Childhood Education Center ........... 10
Chapter I, Introduction .................................... 11
  The Dale Avenue School ................................... 12
Chapter II, Launching the Project ............................ 15
  Community which the Project Serves ..................... 18
  Background of the Development of the
  Performance Objectives .................................. 20
  Diagnostic Testing ....................................... 22
Chapter III, The Curriculum .................................. 31
  Preprimary-Primary Performance Objectives
    as a Curriculum ....................................... 32
  Reading Program ........................................ 38
  Teacher Training ........................................ 40
  Parent Program ......................................... 43
  Other Volunteer Services ................................. 44
  Three Case Histories .................................... 44
Chapter IV, The Results ..................................... 47
  Evaluation Design ....................................... 48
  Evaluation Results ....................................... 52
  The Dale Avenue Project as a Demonstration
  Site ................................................... 75
  Producer-Consumer Agreement for the Replication
  of the Dale Avenue Project .............................. 78
Appendices: A. Skill Assessment Test, Part I
  B. Skill Assessment Test, Part II
  C. Identity and Body Parts Checklist, Part I
  D. Identity and Body Parts Checklist, Part II
  E. Means and Standard Deviations for the Skill
     Areas in the Performance Objective
     Curriculum, First and Second Grades
  F. Map to the Dale Avenue School
Synopsis

The quality of urban education in the United States has been a major national concern for over a decade. The Dale Avenue project grew out of this concern. Its contribution to the improvement of urban education is significant for it provides a pathway through which urban children attain the skills required to be at grade level in reading and mathematics and at the national norm in I.Q.

The program's core is a performance objective curriculum which systematically develops students' skills in ten critical areas: listening, naming, observing, speaking, perceptual motor skills, writing and motor skills, classification, mathematics, decoding-encoding, and seriation. The mean IQ of the students in the Dale Avenue school who have followed this skill development sequence has been raised from 82 to 100. The students' developmental pattern is highly predictable. It takes two years, prekindergarten and kindergarten, for their skill level and IQ to reach the national norm for their chronological age. They can then maintain this skill level in the subsequent years which they spend in the program.

The essential components of the program are:

a. Use of the performance objectives for individual and group instruction and as an evaluation tool

b. Forty-five minutes per day small group reading program with students grouped homogeneously according to achievement test scores

c. Volunteer parent program which includes a parent committee and volunteer parents to assist teachers
This report will describe in detail the educational needs which this program was developed to meet, the program's essential components, and the improvement in students' learning which the program brought about.

The performance objective curriculum is highly transferable. It may be acquired at minimal cost from the project staff. Its use requires primarily the careful preparation of teachers. Provision must be made for training, planning time, consultation, and continuing support. The performance objectives are not an addition to a regular curriculum, but a mode of organizing the entire curriculum and specifying the exact skills which the teachers teach and the students learn.

The Dale Avenue School in Paterson, New Jersey, is a demonstration site for the performance objective curriculum. It is open to everyone who is concerned about the quality of urban education. It is the desire of the staffs of both the Paterson, New Jersey, public schools and the New Jersey State Department of Education that many educators will find this program useful and that as a result urban children will have new opportunities to succeed.
Need for Early Childhood Education Center

As early as 1958, the Paterson Superintendent of Schools recognized the need and recommended that the Paterson Board of Education establish an Early Childhood Education Center. This recommendation was repeated throughout the years as the superintendent saw increasing evidence of the need and as he agreed with community demand for it in an expanding urban community.

In 1966, in a Paterson Education Association educational report, teachers in the system expressed concerns for the need of better education for urban youngsters. They included in their major areas of concern the needs to:

1. determine as early as possible whether children were educationally handicapped
2. establish in-service education
3. offer appropriate remediation to academically disadvantaged children

The general feeling of the community was that early identification of student needs and the development of model educational programs to meet these needs was of vital importance.
Introduction
Dale Avenue School

The Dale Avenue School was established by the Paterson Board of Education to fulfill the need of providing an experimental prekindergarten through third grade center. The school is in a factory that was renovated and furnished through funding from the Elementary and Secondary Education Act, Title I.* The salaries of most staff members are paid by the Board of Education. All prekindergarten staff, social work coordinator, nurse, speech therapist, physical education teacher and all aides are paid by ESEA, Title I. All prekindergarten supplies, including furnishings and learning materials, and some prekindergarten materials, are paid by ESEA, Title I. All other school personnel and cost of supplies are paid by the Paterson Board of Education.

The purposes of the school were several. The staff was expected to develop a curriculum to help disadvantaged children develop cognitive skills at the normal rate. An evaluative base had to be established to assess the students' educational progress. The school's ultimate purpose was to bring each child, on an individual basis, to his full potential. A teacher-parent-community-child oriented program was to be developed which would emphasize the involvement of all in the educational activities of the students. And finally the Dale Avenue School was to provide a model of a new curriculum, new teaching techniques, and the use of new materials to all of the public schools in Paterson.

Since the Dale Avenue School was designed to serve the educationally disadvantaged child and since the Dale Avenue Title III Project studied and compared the cognitive and behavioral development of disadvantaged and advantaged children, it is important to define these terms for the purposes of this report.

*Title I of the Elementary and Secondary Education Act of 1965 is the largest single Federal Aid to Education program affecting elementary and secondary schools and is designed to provide financial assistance to schools serving areas with large concentrations of children from low-income families. Its purpose is to provide supplementary programs tailored to meet one or more of the educational needs of educationally deprived children in the project area.
Educationally disadvantaged - The most striking feature of the inner city educationally disadvantaged is that they are poor. Their yearly incomes are generally around $5,000. Many come from broken homes and live in densely populated areas in substandard housing. Educationally disadvantaged children live in a world that is dominantly physically rather than ideationally and verbally controlled. They lack early experiences of an educationally stimulating nature. Children from educationally disadvantaged homes often do poorly in school for the following reasons:

1. The lack of an educational tradition in the home.
2. The lack of books, toys and games in the home.
3. Insufficient standard English language.
4. Inadequate motivation to pursue a long-range educational career.
5. Inadequate self image.
6. Poor health, improper diet, frequent moving and noise (constant loud music).

Educationally advantaged - Most of the educationally advantaged children come from so called middle-class homes where the average yearly income is generally over $8,000. They live in less populated areas than the disadvantaged and there are fewer persons per apartment or house. In middle-class homes communication is carefully nurtured. Children are encouraged to speak in words, phrases and complete sentences. They have a repertoire of nursery rhymes, poems, stories and songs which have been taught by rote. There are many books, toys and games in their homes. Their curiosity is cultivated and questions are answered by parents. They learn to talk freely with parents, siblings, other children, relatives, neighbors, shopkeepers and friends of their parents.

Pupil Selection

Children enter Dale Avenue School in prekindergarten and remain in the school through third grade. All children use district transportation while attending Dale Avenue School. The criteria for entrance into prekindergarten are threefold:

1. Students must be registered by a parent or guardian and have all necessary, verified health forms completed. Registration for the following year is held once a week by appointment.
2. Students must be from a verified Title I designated district in Paterson which serves a large concentration of children from low income families.

3. Students must show educational disadvantage by scoring below a designated figure on a battery of three tests (90 on P.P.V.T.; 50 on Identity and Body Parts Checklist, Part I; and 50 on Skill Assessment Test, Part I). These scores are well below suburban means of the advantaged control group.

Staffing Pattern

The teacher-pupil ratio in the prekindergarten is five-to-one as there is a teacher, associate teacher, and teacher aide with fifteen children. In each prekindergarten classroom one of the adults speaks Spanish as well as English fluently. In the kindergarten the ratio is ten or twelve-to-one as there is a teacher and teacher aide for twenty to twenty-four pupils per class. Since some of the classes use a team teaching approach an aide is assigned to both teachers for most of the day. For the remaining teachers in self-contained classrooms, aides are assigned for most of the morning or afternoon.

The speech, home economics, art, music and physical education teachers, nurse, psychologist and social work coordinator do not have aides assigned to them. The aide assigned to the classroom teacher travels with the class when they go to art, music, home economics and physical education. Aides do not go along with the children when they go to the speech therapist, psychologist, nurse or social work coordinator as designated children rather than the whole class usually travel to them.

Staff Selection

The staff was selected on the basis of having shown ability to be innovative and having proper certification.
Launching the Program
Launching the ESEA, TITLE III
Dale Avenue Project

When the Dale Avenue School opened in February 1969, several members of the staff began immediately to assess the curriculum needs of the prekindergarten children to form an evaluative basis for the development of a curriculum. The curriculum which emerged for the prekindergarten from these early months of testing was a performance objective curriculum which focused upon the areas of the children's greatest need. It was soon apparent, however, that additional staff members would be required to complete this needs assessment, especially in the upper grades, and to develop an appropriate curriculum.

Mrs. Vera P. Thompson, Director of Funded Programs in the Paterson public schools, wrote a proposal for this purpose with the assistance of the Assistant Director of Funded Programs, a writing team from the Dale Avenue School, Model Cities Consultants, and the staff of the New Jersey Urban Schools Development Council.

The proposal was accepted for three years of development funding, 1970-71, 1971-72, and 1972-73, through the Elementary and Secondary Education Act, Title III, by the New Jersey State Department of Education. As a result the Dale Avenue Project: A Performance Objective Curriculum for Prekindergarten through Third Grade was developed through the cooperative efforts of the Paterson public schools and the Office of Program Development, Division of Research, Planning, and Evaluation, New Jersey State Department of Education.
Purposes and Goals of the Project

The purposes of the project as outlined in the initial proposal and continuation grants were to

1. define the needs of urban students in prekindergarten through third grade;
2. define curriculum needs based on an assessment of students' physical, sociological and educational needs;
3. produce a more effective curriculum which would provide varying rates of progress for a variety of students;
4. train staff in the use of materials, curriculum development, research classification of student needs;
5. improve the academic performance and capabilities of students from disadvantaged urban environments;
6. produce an assessment system that supports student programming, practical research studies and project evaluation;
7. involve parents in the activities of the children in the school;
8. establish a program for dissemination of information to the community, parents and educators;
9. expand supplementary services (medical and educational) in the areas of hearing, speech and language, social and psychological services;
10. raise the mean I.Q. of Dale Avenue students to the national norm by the end of kindergarten and to maintain this gain through the three years of the project.

Staffing

The Title III team hired in October of 1970 included a Project Director, Researcher and Parent Coordinator. An audiologist, secretary, two tester/supplementary instructors and a psychometrician were subsequently hired to complete the team.
Community which the Project Serves

When the Dale Avenue School opened, the city of Paterson, New Jersey, had a student population of approximately 32,500 children enrolled in fifty public and parochial schools. Of these students, 26,179 were attending thirty public schools and approximately 6,500 were attending twenty parochial schools maintained by the Paterson Diocese. Of particular significance was that the public school population consisted of a high percentage of students who came from low-income families - 5,485 students or 21% came from homes receiving aid for dependent children.

As of October 1973 there were 27,396 children enrolled in public schools in Paterson: 14,101 were Black, 6,664 were Spanish, 9 were American Indian, 39 were Asian American and 6,583 were White.

In 1969 the approximately 550 prekindergarten through third grade student population of Dale Avenue School reflected the ethnic breakdown of the city. Of the 120 pre-kindergarten children, 60% were Black, 20% were Spanish speaking, 19% were White and 1% were Oriental. The average family income of students at the school was approximately $6,000 per year.

Since the school's opening the composition of the student body has remained approximately the same.
Funding

The project's development budget over a three year period covered primarily the salaries of the development staff. Other costs included office supplies, travel expenses, demonstration materials, resource materials, and dissemination expenses for printing flyers, bulletins, etc. The project's yearly funding was: 1970-71, $91,904; 1971-72, $90,000; 1972-73, $91,096.

The project is currently funded as a demonstration site. The project staff is available to train other districts in the program's replication. The dissemination grant for 1973-74 is $80,000. This funding covers the cost of staff salaries and the preparation of the materials required to replicate the project.
Background of Development of Performance Objectives

An initial assessment of urban disadvantaged preschool children was begun at the Paterson State College Demonstration School, Wayne, New Jersey, in 1968, where a group of thirty Paterson children were enrolled in an experimental program. Specific educational goals were set up for these children after they were pretested with the Peabody Picture Vocabulary Test, Form A; the Draw a Man Test, and after some specific skills were denoted as being undeveloped through teacher observation. Educational gains were determined at this demonstration preschool through posttesting with the Peabody Picture Vocabulary Test, Form B, the Draw a Man Test, and the teacher constructed Skills Assessment Tests and Identity and Body Parts Checklists.*

In April of 1969, the Social Work Coordinator for the Paterson Title I programs contacted the Director of Field Services at Educational Testing Service of Princeton, New Jersey, to seek assistance in creating and formulating an evaluation program which would assess the development of the individual prekindergarten and kindergarten child. The Director suggested that performance objectives be used to determine cognitive abilities and that the Paterson Title I prekindergarten staff be asked to list goals which they felt prekindergarten children might be expected to achieve. In July of 1969, the prekindergarten staff met and contributed these goals, many of which were affective in nature.

* The Peabody Picture Vocabulary Test and the Identity and Body Parts Checklists are described fully in the section on DIAGNOSTIC TESTING. The Draw a Man Test is also known as the Goodenough, Harris Drawing Test.**

An I.Q. and evaluation of needs can be derived from a child's drawing of a man. Dr. Francis Tomedy, Psychology Professor, William Paterson College, Wayne, New Jersey (formerly known as Paterson State College) interpreted, evaluated and derived I.Q. scores from the drawings.

In December of 1969, the Director and Assistant Director of Prekindergarten at Dale Avenue School and the Title I Social Worker met with the Director of Field Services in Paterson and decided on some of the headings under which the Performance Objectives would be listed. The categories of Listening ... Naming ... Observing ... Encoding ... Mathematics ... and Classification ... were chosen at this time and a tentative first and terminal objective in each category was written. In January of 1970, the other categories of Writing and Motor Skills ... and Perceptual Motor Skills ... were added by the Assistant Director of Prekindergarten, and the remainder of the performance objectives were written by her. The Speech Therapist for Title I at Dale Avenue School added the Speaking category and wrote the Performance Objectives for this section.

The results of the 1968-69 testing at the Paterson State College Demonstration School and the results of the Peabody Test given by the Speech Therapist and the Assistant Director of Prekindergarten children at Dale Avenue School in 1969-70 substantiated the belief that the need to develop language (standard English) was a top priority in the pre-kindergarten curriculum. Because of this, rather than presenting the performance objective categories in alphabetical order, they are in order of priority with Listening ... Naming ... Speaking ... heading the list. The teachers would start the program by teaching Listening ... Naming ... Observing ... and Speaking ... which is the sequential way in which a language is learned.

As a result of this work the initial form of the Dale Avenue Performance Objective Curriculum was introduced at the prekindergarten level in the second half of the 1969-70 school year. In August 1970, the performance area of Classification was completely rewritten using "Thinking is Child's Play"* by Evelyn Sharp as a basis for this section.

This needs assessment and curriculum work formed the basis for the Dale Avenue ESEA, Title III project. It was continued for the next three years under Title III funding and carried into kindergarten and grades one through three.

* Evelyn Sharp, Thinking is Child's Play, (Dutton and Company, Inc., 1969)
Diagnostic Testing

Overview

When the Dale Avenue Title III project was initiated in the fall of 1970 the Title III staff built upon and extended the needs assessment and curriculum development work that was already underway in the Dale Avenue School. The first task was to complete the assessment of the curriculum needs of the prekindergarten children and to initiate the assessment for those of the kindergarteners. In the project's second year, the curriculum needs of the first, second, and third grade students were assessed. The final development year was devoted to the refinement and continued evaluation of the performance objective curriculum.

To assess the curriculum needs of the prekindergarten and kindergarten students three tests were used: the Peabody Picture Vocabulary Test (PPVT), and two staff developed tests: the Skill Assessment Tests I and II, and the Identity and Body Parts Checklists I and II. The PPVT had been successfully used at the Campus School Prekindergarten Program at Paterson State College and for the Dale Avenue prekindergarten testing the previous year. This test and the two developed by the staff will be described further in this section.

During the project's second year the curriculum needs of the first, second, and third grade students were assessed through continued use of the PPVT as well as teacher evaluation and the testing of a random sample of the students on the Bank Street Reading Test.*

The assessment of the prekindergarten and kindergarten children reconfirmed the necessity for a curriculum of performance objectives based on the needs of these inner city children. Their needs definitely seemed to be in the areas of Listening, Naming, Observing, Speaking, Mathematics, Perceptual Motor Skills, Writing and Motor Skills, Classification, Decoding-Encoding.

The assessment of the children in the upper grades showed that they were being taught material for which they were not ready rather than being allowed to perform at their development levels. Previous Stanford Achievement Test scores had indicated that the second and third grade children were lagging behind their more advantaged peers in reading skills. Teacher evaluation and spot checking indicated that, developmentally, many of the children were behind in listening skills, mathematics, vocabulary development, writing and motor skills, speaking and perceptual motor skills. These were the very areas in which prekindergarten and kindergarten children at Dale Avenue School showed deficiencies.

The remainder of this section will be a detailed discussion of the diagnostic tests used to assess the curriculum needs and capabilities of the Dale Avenue prekindergarten students in the project's first year. The section will close with a summary of the students' needs and capabilities as determined by the tests. This will give the reader an adequate background to understand the student needs to which the performance objective curriculum is addressed.
Peabody Picture Vocabulary Test (PPTV)

The PPVT is an individually administered test of verbal intelligence. It requires no verbal response from the testee and no special training for the tester. It is a good rapport builder and requires approximately fifteen minutes to administer. The test consists of one hundred and fifty plates, each containing four pictures, graduated in terms of item difficulty. The tester presents a stimulus word orally and the subject indicates, usually by pointing, which picture of the four on the particular plate, represents what the tester said. The testee's Basal Age is established by eight correct responses and the test is continued to a Ceiling Age of six errors in eight consecutive responses. The test yields a raw score, that is, a number of correct responses, and three types of derived scores, mental age, intelligence quotient (IQ), and percentile. The test publisher also presents two alternate forms, A and B, which allows for a pre and post testing design. Each prekindergarten child was given the PPTV, Form A.

Staff-developed Tests

The staff developed two tests and two forms of each test that were also used for diagnostic purposes. There are two tests for prekindergarten students and two for kindergarten students.

The Prekindergarten Skill Assessment Test I inventories basic intellectual skills of which some are included on the Stanford-Binet Intelligence Scale. The skills are the ability to name circle, square, triangle; name colors; rote count; identify randomly presented numerals; count objects; and see likenesses and differences. A prekindergartener's skills in these tasks may be quickly assessed by the tester. In contrast to the PPVT, the testee must verbalize a response. This test will be found in Appendix A.

The Kindergarten Skill Assessment Test II is an extension of Test I and is designed for kindergarten students. It contains more items, some of which range above expected developmental performance of kindergarten children to allow for finer discrimination at these higher performance levels. This test will be found in Appendix C.
The Identity and Body Parts Checklists I and II were developed because the Title III staff considered knowledge of the self essential for a child to sharpen his intelligence. It was also felt that learning all about who they are and the labels for the parts of their body would help children to have an understanding of their uniqueness and worth. This knowledge should also improve the children's standard English and provide rudimentary likenesses and differences.

The Identity and Body Parts Checklist I asks prekindergarten children to answer the following questions:

What is your name? Who is your teacher? How old are you? Where do you live? What is the number of the bus you ride?

The checklist also asks children to name and tell how many they have of the following: eyes, nose, mouth, ears, elbow, arm, leg, hand, fingers, wrist, feet.

And children are requested to name the following: teeth, tongue, eyebrows, eyelashes, back, stomach, hair.

The Identity and Body Parts Checklist Part II requires kindergarten children to answer the same questions plus the following additional ones.

What is the name of this school? What grade are you in? Are you male or female? Which is your right hand? Your left?

The Checklist II asks the kindergarten children to name the same body parts plus nostrils, cheeks, forehead, chin, chest, toes, knee, shoulders, waist and hips.

The Identity and Body Parts Checklists I and II will be found in Appendices B and D.
Needs Determined through Diagnostic Testing

As a result of observation and assessment of the three pre-tests that were administered to the one hundred and twenty prekindergarten children at Dale Avenue School in October and November of 1970, the following student needs and capabilities were confirmed:

Needs determined by the PPVT, Form A:

1. When an action is applied to a picture thirty-one percent of the children failed to see the relationship. (Ex. "picking", "sewing", "pouring" and "yawning")

2. Seventy-nine percent of the children had a very limited standard English vocabulary. Thirty percent gave incorrect responses to stimulus words because stories, nursery rhymes and poems had not been read to them. (Ex. "coach", "caboose")

3. Thirty-eight percent of the children did not know vocabulary words whose referents are rare in low income homes, such as words that describe and explain or words that have to do with rural living. (Ex. "yawning", "bush", and "nest")

4. Fifty percent of the children had difficulty remembering to look at each of the four pictures on the page before selecting the picture that represented the stimulus word.

5. The test helped to identify children with perceptual problems as well as problems of personality that have to do with cognition. Thirty-five percent of the children exhibited problems in auditory and visual perception or acuity, withdrawal or hyperactivity, distractability, disinhibition, inappropriate responses, perseveration or negativism.

6. Twenty-five percent of the Spanish speaking children came to school knowing little or no English. Although many had learned to communicate in English and were able to score on the Peabody A Test, their scores, of course, were very low. We administered the test in Spanish to the children who were not able to score on the English
version and found that they did just as poorly on the Spanish version. These children needed a special bi-lingual development program.

7. The mean I.Q. for the one hundred and twenty pre-kindergarten children at Dale Avenue School in 1970-71 was 80. The extrapolated scores for many of the Spanish-speaking children who were test-able are included in this score. This figure was, therefore, lower than the I.Q. of 86 which has been listed in the literature as the average I. Q. score for the culturally disadvantaged.

8. One fourth or more of the prekindergarten children gave incorrect responses to the following words:

- tying  caboose
- bush   envelope
- pouring picking
- sewing badge
- wiener goggles
- arrow coach
- nest  freckle
- yawning

Capabilities determined through the PPVT, Form A:

1. The children were fairly good at recognizing pictures that represented concrete objects. They did recognize action words that had to do with childhood play such as "catching."

2. The children were extremely attentive and cooperative. They sat for about one half hour for the administration of three tests and seemed to enjoy the testing situation.

3. Almost all of the children understood or could be taught the concept of pointing to a picture.

4. Rapport was gained very easily with the majority of the children.

5. The children needed very little praise or encouragement.
6. The speech of ninety percent of the children was intelligible (other than that of the Spanish speaking children). Whenever a child's speech was noticeably unintelligible a referral was made to the speech therapist for follow-up.

7. All of the children could see the pictures at a distance of between six and eight inches.

8. When it was apparent that the children didn't know certain words and they were asked to guess, the majority did so.

Needs determined by the Skill Assessment Tests, Part I:

1. Although fifty-seven percent of the children were aware of, and could name, shapes (ex. round shape, window, Indian house) fifteen percent of them did not know the geometric term for circle; twenty-two percent did not know the term square and three percent of them did not know the term triangle.

2. Less than one percent of the prekindergarten children knew their birthday or the month of their birthday.

3. Eighty-eight percent of the children did not recognize or identify numerals 2 through 10. Fifty percent of them recognized numeral 1. Fourteen percent mixed up letters and numbers.

4. The children could tell that there was one object when the examiner asked, "How many objects do you see?" However, they did not do so well in counting objects in groups of two, three and four or in seeing the whole group and knowing how many there were without having to count each one.

5. Seventy-nine percent of the prekindergarten children had difficulty in explaining likenesses and differences. This was partly due to a lack of understanding the concept and possibly also due to their lack of understanding the standard English language structure used by the examiner. The children needed to learn the concepts of "and," "either," "or," "not," polar opposites, and categorizing. Sixty-three percent of the children
dropped the verb when the examiner asked, "Why are these the same?" When shown three identical red circles, they answered, "Balls red." The most common answer given was "Red - red - red." Dr. Roger Brown, of the Center for Cognitive Studies at Harvard, calls this type of language "telegraphese." He believes that this results from a limited programming ability. The Russian psychologist, Vygotsky* believes that instruction can change a child’s verbal development. We at Dale Avenue School believe it also.

Capabilities determined by the Skill Assessment Test, Part I:

1. Rote counting was an area where the Spanish speaking children had success. They seemed to have less difficulty learning this skill than they did learning vocabulary and language structure. (This skill can be used to teach the counting of objects.)

2. Fifty percent of the children knew the names of the colors.

3. Fifty-six percent of the children could count from one to ten.

4. Seventy percent of the children could see likenesses and fifty percent of them could see differences.

Needs determined by the Identity and Body Parts Checklists, Part I:

1. Sixty-one percent of the children did not know their names when they entered the program in September. By November (when they were tested on this) ninety-six percent of the children did know their names.

* The reference to Vygotsky was found in the following book. Maya Pines, Revolution in Learning, (Harper and Row, 1967) pp. 205, 206, 186, 187.
2. Ninety-six percent of the children gave the name of the street when they were asked, "Where do you live?" Some told the examiner the house number. Very few included the city and the state.

3. Forty-five percent of the children held up the proper number of fingers when they were asked, "How old are you?", but could not assign the number to the number of fingers indicated.

4. Fifty-four percent of the children did not know the label for eyebrows; seventy-nine percent did not know eyelashes; ninety percent did not know wrist; eighty percent did not know ankle and fifty percent did not know elbow.

5. Ninety percent of the children did not know how many fingers they had on both hands. Sixty-eight percent of the children did not know how many fingers they had on one hand.

6. Ninety percent of the children did not understand the concepts of Miss, Mrs. and Mr. and used them inappropriately. A married teacher was sometimes called Miss and at other times Mr. The children knew that a title came before the name, but they did not know which title to use.

Capabilities determined by the Identity and Body Parts Checklist, Part I:

1. Eighty-eight percent of the children learned the number of the bus they ride on. This was given number one priority in the skills they had to learn.

2. Sixty-two percent of the children did know something about twoness. They had learned since entering school in September (or already knew) that they had two eyes, two arms, two feet, etc.

3. Seventy-eight percent of the children knew the name of their head teacher. Ninety-six percent knew the name of at least one teacher. (They have three per class - a teacher and two teacher aides.)
Curriculum
In 1969, prior to the Title III project in Dale Avenue, the first draft of the Prekindergarten-Kindergarten Performance Objectives was developed by the Prekindergarten Assistant Director and used for the second half of the school year with the prekindergarten children. In 1970-71, with the initiation of the Title III project, they were revised several times as a result of teacher suggestions and further diagnostic testing to fit more closely the order in which the Dale Avenue prekindergarten and kindergarten children were mastering skills. In 1972-72 first through third level Performance Objectives were developed and combined with the Prekindergarten-Kindergarten Objectives into one Preprimary-Primary Performance Objective Curriculum.

The ten areas of the Dale Avenue Performance Objectives and the reasons for their inclusion in the curriculum are:

1. **Listening** - was considered to be an important curriculum area because the staff felt that hearing with purposeful attention must be taught in sequential steps as a part of the regular instructional program throughout the grades.

2. **Naming** - or labeling was included in the performance objectives because disadvantaged children do not know the names of many ob-
jects. Their information is limited and so their ability to express themselves in standard English language is often immature. It was hoped that the successful combination of manipulation and labeling would help the children to develop knowledge.

3. Observing - was also included in the curriculum because children need to become aware of things through the senses of sight, hearing, understanding and apprehending with the mind.

4. Speaking - involving standard English was included in the curriculum. Dialect is fine for spontaneous speech and to compare or convey ideas, opinions and feelings. However, the staff felt that the children must function in situations where the standard that is spoken is not dialect. Reading and spelling require the knowledge of standard English sounds.

5. Mathematics - skills are learned by first hand experience with many manipulative materials. Reciting the names of the numbers in order has the same relationship to mathematics that the alphabet has to reading. Children gain understanding not from the objects, nor from what we tell them about the objects, but from their own actions on the objects. They are capable of a high order of reasoning if given materials that they understand.

6. Perceptual Motor Skills - were developed sequentially in the hierarchy levels of normal development.

7. Writing and Motor Skills - were developed sequentially. The eye-hand exercises reinforce visual comparison skills.

8. Classification - is an intellectual skill that lies at the core of certain kinds of learning. It is essential for problem solving in the fields of mathematics, science and social studies. It requires the ability to recognize likenesses and differences between objects and to group them accordingly. The children's first experiences in classification should be with physical objects. They need
to learn to use logic and reasoning in handling material things before they can do so with verbal problems.

9. **Decoding-Encoding** (Reading) - Decoding is the ability to recognize symbols and gain meaning from them. Encoding is the ability to express ideas in words or gestures.

10. **Seriation** - is stressed by Piaget as a most important part of learning. Because Piaget's experiences indicate that seriation is more fully understood at six years of age (developmentally) it is included in the first through third grade performance objectives.

As part of the research for the project, various curriculum designs and performance objective formats were examined very closely. The Curriculum Guides for Public Schools of both Montclair and Paterson, New Jersey, were also examined. The Curriculum Guide from the Bucks County Public Schools in Pennsylvania and from Marysville, California, were closely perused, as were the Instructional Objectives in the Los Angeles, California, Public Schools. The Appleton Century Crofts Math Modules and the Bank Street Reading System were examined and much was derived from them and incorporated into the first through third grade performance objectives.

None of the above sources included areas devoted to Speaking, Naming, Perceptual Motor Skills, Classification, Observing or Seriation so the Title III staff developed these using the varied backgrounds of the staff members in speech and language correction and learning disabilities. Suggestions from Dale Avenue teachers were very helpful as well as information gained from research of the specialists in the field of learning disabilities, reading, mathematics, perceptual motor activities, language and child development.
Record Keeping for the Teacher

The Preprimary-Primary Performance Objectives are a list of skills that are compatible with the developmental sequence of children from four through nine years of age. Besides being used as the basis of the Dale Avenue curriculum, the performance objectives are also used as a pre and post test to show students' progress within the curriculum. Teachers teach and test in any way they wish, and tests to go along with the performance objectives have been developed and are available from the project staff.

The individual record of performance goes along on a summary sheet with each child from one grade to the next. The receiving teacher is then able to ascertain what each child can do and can help him to move along successfully at his ability level. The summary sheets indicate the highest numbered item the child has completed in Listening, Naming, Speaking, Observation, Writing & Motor Skills, Perceptual Motor Skills, Mathematics, Decoding, Classification, and Seriation. In the area labeled Comments, the child's un-mastered skills, that come before the highest number attained, are listed as well as teacher comments.

The Title III staff discovered by pretesting all first through third grade children in the fall of 1972 that the skill levels that were recorded by the teachers in June of the previous school year were very accurate. The most that children had forgotten over the summer was two items except in the Naming area where more than two items were forgotten. Teachers were told to drop back two items for reinforcement in all areas but Naming and to consider this the pretest information. Each child would have to be individually pretested each year in Naming.
Below is an illustration of a summary sheet:

Name - Birthdate -
Address - School -

Please indicate highest numbered item in each category that this child has successfully completed.

<table>
<thead>
<tr>
<th>Level</th>
<th>L</th>
<th>N</th>
<th>SP</th>
<th>OBS</th>
<th>WMS</th>
<th>PMS</th>
<th>M</th>
<th>SE</th>
<th>CL</th>
<th>DEC</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRE-K</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KIN</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LEV 1</td>
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<td></td>
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<td></td>
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<td></td>
<td></td>
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<tr>
<td>LEV 2</td>
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<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>LEV 3</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

List under comments all objectives not mastered that come before highest number attained.

Pre-K Comments Teacher Date

Kin Comments Teacher Date

Lev 1 Comments Teacher Date

Lev 2 Comments Teacher Date

Lev 3 Comments Teacher Date
Roll books are used by each teacher to chart a student's progress throughout the year. The teacher lists the students' names in the left hand column. The name of the performance area is listed above the graphed area. Under this, the performance objective numbers are listed. For **Listening**, it would be L-1, L-2, L-3, etc. Every objective that the summary sheet and Naming pretest has indicated that the pupil can do is marked in blue ink. Every new objective taught is marked in red. This is the method used by the Jale Avenue teachers, but any other method that is clear to the teacher may also be used.

The roll book provides the information necessary for grouping children. The teacher sees at a glance which children are working on the same objectives in any of the performance areas. She sees which child has mastered a skill and can help another child. She sees which objectives she should be teaching or building toward and she can plan her daily lessons accordingly.

A sample page from a roll book is pictured below.

BLUE CHECK INDICATES THAT PUPIL KNEW THIS AT PRETEST TIME.  
RED CHECK INDICATES PUPIL LEARNED THIS SINCE PRETEST TIME.

<table>
<thead>
<tr>
<th>BLUE</th>
<th>RED</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LISTENING</strong></td>
<td></td>
</tr>
<tr>
<td><strong>STUDENT'S NAME</strong></td>
<td>L-1</td>
</tr>
<tr>
<td>1. Cameron, John</td>
<td>✔</td>
</tr>
<tr>
<td>2.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
</tr>
</tbody>
</table>

Although the individual performance records are considered to be the most important information gained by using performance objectives as indepth pre and post tests, grade level mean scores were obtained in the course of the project. These scores will be found in Appendix E.
Reading Program

A combination of teacher evaluation and testing information is used to place each first through third grade child in a homogeneous reading group. The skills taught in the reading program are those in the Decoding-Encoding performance area.

Since it is the philosophy of the program developers that all the Performance Objective areas are directly contributory to the firm development of reading skills, all areas of the Performance Objectives are taught along with Decoding/Encoding.

Every day from 9:00 to 9:45 all first through third grade children and some kindergarten children who show readiness work in small homogeneous reading groups. The size of the groups ranges from eight to fifteen children. These groups are led by the teachers or the specialists, such as, art, music, etc., some of the Title III staff, all the classroom teachers, and the aides under the direction of the teachers.

Another forty-five minute reading period was conducted every afternoon by each first through third level classroom teacher with all her own pupils.

Children exhibiting perceptual motor problems are placed with the physical education teacher who uses intensive motor training with these children.

The art teacher works with children with problems in visual perception. She uses basic shapes to form more complicated structures. Cave drawings, signs and newspaper advertisements are part of this program.
Children who exhibit speech and language problems go to the Speech Therapist for the forty-five minute reading period.

The first year of the project the Title III psychometrician who had had graduate training in clinical psychology and served as behavior modification consultant at the Kansas Neurological Institute, used behavior modification techniques with a group of disruptive children.

In the project's third year a few grade three children who were reading on an extremely depressed level and had not been through the performance objective curriculum were placed with the home economics teacher for reading. The teacher used items found in the home economics setting as a medium for the establishment of word recognition and sight vocabulary. Classification of foods and objects followed, and these children read simple recipes.

In the project's third year children who manifested special aptitude for music were in a music and reading group with the music teacher. Word families were built in spelling songs. Word recognition was taught as children learned to read the words in songs.
Teacher Training

In-service training was instituted on three levels: formal workshops held in Dale Avenue School, informal meetings with teachers and workshops held by other agencies which Dale Avenue teachers were encouraged to attend and where enrollment was paid for by Title III funds. Formal workshops included the following:

1. "Objectives and Procedure of a Hearing Conservation Program" - Mrs. Gilda Walsh, staff audiologist and instructor at William Paterson College.

2. "Methods and Materials in Perceptual Training" - Dr. Phoebe Lazarus, Learning Disabilities Supervisor of Programs of Nassau County, N.Y. Board of Cooperative Educational Services and Consultant to the Pathfinder School.

3. "Language Workshop" - Title III Dale Avenue Project Researcher.

4. "Title III Testing Program" - Dr. Francis Tomedy, Psychology Professor at William Paterson College.

5. "Report on Symposium on Early Childhood Education held at Johns Hopkins University in Baltimore" - Project Director, Title III, Researcher, Title III.

6. "Orientation Workshop for First Level Teachers" - Project Director, Title III, Researcher, Title III.

7. "Personality Variables and How They Affect Learning" - Dr. Marion Blank of Albert Einstein College of Medicine.

8. "Methods and Materials for Teaching Math" - Mr. Fred De Feo, Math Supervisor in Paterson, New Jersey.

10. "Individualized Instruction" - Title III Researcher.

11. "Overview of the Title III Project" - Title III Project Director.

12. "Learning Disabilities, A Language Disorders Phenomena" - Dr. Harold M. Scholl, Professor of Speech and Coordinator of Special Education Programs at Montclair State College.


15. "Performance Objectives" - Mr. Buck Boston, consultant from Educational Improvement Center, Northwest, Cedar Knolls, New Jersey.

16. "Behavior Modification ala Glasser" - Dr. Marion Franklin, Professor at the University of North Carolina, Chapel Hill, North Carolina.

17. "Motivation and Individualization of Instruction" - Dr. Susan Glaser, Professor at Rider College, Trenton, New Jersey, and the University of Pennsylvania.

Workshops held on Saturday morning by other agencies and attended by Dale Avenue teachers were:

1. "Performance Objectives and Reading" - Reading Conference at Newark State College.

2. "Reality Therapy" - Dr. William Glasser at William Paterson College Workshop held at J. F. Kennedy High School in Paterson, New Jersey.
Informal workshops consisted of several orientation and discussion sessions held during the monthly principal's meeting. Voluntary meetings were held with teachers who came to the Title III office to contribute their input into the program, to ask questions concerning the implementation of the performance objectives curriculum and to gain information on how to work with children with particular needs. An open office policy allowed availability of Title III staff to teachers.

It became apparent the very first year of the project that the teachers needed resource material. Whenever it was requested, the Project Director and Researcher provided suggestions or resource materials to teach particular skills. A sizeable research library on Early Childhood Education was also made available to the teachers by the Prekindergarten Director.

Because the teaching staff requested resource material in particular areas or voiced particular concerns, workshops on behavior modification, the urban disadvantaged child, perceptual development and training motivation, individualization and grouping, record keeping, learning disabilities (auditory memory, visual decoding, vocal encoding, auditory and visual association and sequential process and closure) spelling, math, reading and testing were provided.

The orientation workshops led by Title III Project Director or Researcher dealt with:

1. rationale for performance objectives based on the needs of educationally disadvantaged children
2. explanation of the importance of a developmentally sequential performance objective curriculum which follows the way children develop skills
3. explanation of staff developed tests and the P.P.V.T.
4. methods of teaching and testing performance objectives
5. use of record book summary sheets and parent reporting sheets

6. grouping and individualizing from performance objective information

7. involvement of parents

8. room set-up

9. importance of language development activities using pupils themselves, all objects in the classroom, pictures, puzzles, games, books, etc.

Feedback from the P.P.V.T., the Identity and Body Parts Checklist and Skill Assessment Test are an important part of the training of prekindergarten and kindergarten teachers. This feedback information allows them to quickly ascertain what skills particular children need to learn, in which group to include them, and what strengths and weaknesses they possess. If the teacher is not sure how to tackle the special problems of individual children, suggestions are given by members of the Title III staff or other members of the Dale Avenue staff with expertise in the area of concern.

Parent Program

Parent involvement in Dale Avenue School was threefold: Title III Parent Advisory Committee, P.T.A. and Parent Volunteers.

The original members of the Title III Parent Advisory Committee were selected by the Project Director and Parent Coordinator. The membership was opened up to any interested Dale Avenue parent. This committee met once a month and was apprised of every aspect of the program. The committee's main function was as liaison to the community.

Several of the members of the Parent Committee were also on the Dale Avenue School P.T.A. Executive Board. P.T.A. meetings are extremely well attended.
Parents in Prekindergarten are required to attend several conferences a year at which time they review their children's progress on Performance Objectives. Since there are no report cards, the parents of the Kindergarten through third level are also requested to attend conferences dealing with their children's progress.

During the first year of the project, parents acted as tour guides, made their own tour guide uniforms, attended reading and language workshops, attended and participated at conferences where the Dale Avenue Project was highlighted, cooked, baked and served at school functions, worked in the library, tutored children and modeled in the fund-raising fashion show.

The parent involvement program contributed greatly to parent understanding and support of the program. Nine parents received intensive training in tutoring methods utilized with perceptually handicapped children and children exhibiting poor listening or language skills. Parents contributed a total of four hundred and forty volunteer hours during the second year of the project. They contributed a total of three hundred and seventy-seven hours during the third year of the project.

Other Volunteer Services

Every year of the project student speech and audiology therapists from William Paterson College volunteered hundreds of hours of time working with individuals and groups of children who exhibited speech, language or hearing difficulties.

Three Case Histories

The statistics which show the significant gains made by project children are reported in the final section of this report. These statistics, however, show only one dimension of the students' growth. The following case histories of three project children who entered Dale Avenue School in September 1969 will provide a more complete picture. These children
all had language, speech or learning problems when they entered prekindergarten. The children's names have been changed to protect their privacy.

Carlos Munoz, who entered Prekindergarten in 1969, was one of six Spanish speaking children. His mother had finished sixth grade in Venezuela, where Carlos was born in 1965, and his father two years of college. His mother was a housewife and his father a factory worker in Paterson.

Although at pretest time Carlos, who seemed very alert, was not scoreable on the Peabody Picture Vocabulary Test, or the Skill Assessment and Identity and Body Parts Checklist, he was able to score by the end of the school year. His I.Q. as measured by the PPVT was 61. By the end of the first grade, he scored 90 on the Peabody, 90 on the Identity and Body Parts Checklist and 83.8 on the Skill Assessment Test.

In two years and three months he completed all of the Prekindergarten-Kindergarten Performance Objectives in Listening, Naming, Observing, Speaking, Classification, Mathematics, Decoding, Perceptual Motor Skills and Visual Motor Skills and went on to the first level skills.

At the end of first grade his reading and mathematics scores on the Stanford Achievement Test were at grade level. At the end of second level he scored 3.6 in reading and 4.2 in mathematics on the Stanford Achievement Test. This was eight months above grade level in reading and one year and four months above grade level in mathematics.

When tested in the second grade, January 31, 1973, Carlos scored 122 on the Peabody. He was well behaved, well motivated and completely fluent in standard English.

* * * * *

Warren Thomas, a White child born in July 1965, entered Prekindergarten hardly intelligible in standard English. He had infantile speech patterns with multiple misarticulations, substitutions, omissions and distortions. His pretest score of 69 on the Peabody Picture Vocabulary Test indicated that he had very little receptive language.
Warren was one of four children. His father, who completed tenth grade, was a factory worker, and his mother, who completed high school, was a machine operator. By the end of Prekindergarten Warren scored 100 on the Peabody Picture Vocabulary Test. He completed the Prekindergarten-Kindergarten Performance Objectives in two and one half years and then went on to first grade objectives.

During the first grade, he attended the daily forty-five minute reading group conducted by the speech therapist. He moved ahead very quickly in this group, although his language was still substandard (poor syntax, pronoun confusion). His vocabulary, however, improved greatly. By the end of the year he was at grade level in reading and mathematics on the Stanford Achievement Test.

During second grade he still received some speech therapy and attended the daily reading group conducted by the Title III tester and additional reading in his home room in the afternoon. In January 1973 he scored 108 on the Peabody. In May of 1973 he scored 3.6 on mathematics (eight months above grade level) and 3.8 (ten months above grade level) in reading on the Stanford Achievement Test.

Warren, who had come into Prekindergarten scoring well below norm and not even intelligible, at the end of second grade was scoring above the national norm in I.Q. and achievement, and was fluent in standard English.

****

Phyllis James, a Black female, who was born in June 1965, seemed to be typical of many of the children who entered Prekindergarten in 1969. She was alert, well behaved and was obviously of average or better intelligence, although she scored only 80 on the Peabody Picture Vocabulary Test. By the end of Prekindergarten, with an I.Q. score of 95, she had made significant gains as measured by the Peabody.

At the end of the first grade she scored at grade level in both reading and mathematics on the Stanford Achievement Test. At the end of the second level she scored nine months above grade level (3.6) in both reading and mathematics on the Stanford Test and had maintained the I.Q. gain she had made by the end of Kindergarten. Her I.Q. score on the Peabody was 92.
The Results
Evaluation Design

To discuss the evaluation design for the Dale Avenue Project it is important to understand which project goal the design measures and the timing of the introduction of the Performance Objective Curriculum into the Dale Avenue School. We noted earlier that the project had several goals including evaluating students' curriculum needs, writing the curriculum, training staff in its use, involving parents in school activities, and bringing the average academic performance including I.Q. of the Dale Avenue students up to the national norm and maintaining this gain for the three years of the project. This report has described how the diagnostic testing revealed the students' curriculum needs, the development of the Performance Objective Curriculum, staff training, and the parents' role in the program. The focus of these activities was the last goal which is underlined. The formal evaluation procedure was designed to measure the project's success in terms of the average academic performance and I.Q. of the students who followed the Performance Objective Curriculum.

We have seen that work on the Performance Objective Curriculum began in 1969-70 and that it was introduced to the students in Prekindergarten that year. In the project's first year, 1970-71, the performance objectives were extended into Kindergarten. In the following year, 1971-72, they were introduced into the first and second grades, and in 1972-73 became the third grade curriculum. The students who were in Prekindergarten in the years 1969-70 and 1970-71 have followed the Performance Objective Curriculum throughout their school careers. They are now, 1973-74, in the third and second grades respectively. This is the first...
year in which every student at the Dale Avenue School has followed the Performance Objective Curriculum throughout his years in school. You will note, however, from the chronology above that students who were in the second grade in 1971-72 and the third grade in 1972-73 were introduced to the performance objectives. The introduction took place in the middle of their second grade year and continued in the third grade. Although these students were not officially part of the project, their scores on several of the tests were recorded and analyzed and offer important comparisons to the scores of project students.

There are three main aspects of the project's measure of the central goal: measures of I.Q., other cognitive skills, and behavior. I.Q. measures were made through the use of the Peabody Picture Vocabulary Test (PPVT). The test is discussed in the section on Diagnostic Testing. I.Q. measures were made on two groups of Dale Avenue students: the prekindergarten class of 1969-70 as the students progressed through the second grade in 1972-73, and the prekindergarten class of 1970-71 as these students continued through the first grade in 1972-73. The evaluation results show annual measures of the students' mean I.Q. over a four and three year period respectively. These means may be compared to the mean I.Q. of the national norming sample for the PPVT which is 100.

* * * * *

Other cognitive skills were measured by the Stanford Achievement Test and the staff developed Skill Assessment Tests, I and II, and the Identity and Body Parts Checklists, I and II. In 1971-72 and in 1972-73 the first graders at the Dale Avenue School were given the Stanford Achievement Test published by Harcourt, Brace and Jovanovich, Inc. They were given the Primary I battery group test for grades 1.2-2.5, which tested the areas of word reading, paragraph meaning, vocabulary, spelling, word study skills and arithmetic. The test, which takes from 127 to 160 minutes, is given by the teacher in five sessions.

The second grade children at Dale Avenue School in 1972-73 were given the Primary 2 battery group test for grades 2.5-3.9, which tested the areas of word meaning, paragraph meaning, science and social studies concepts, spelling, word study skills, language, arithmetic computation, arithmetic concepts. The test, which takes from 185 to 235 minutes is given by the teacher in seven sessions.
The test yields a grade level total reading and total math score. To be at grade level a child who takes the test in February of first grade would score 1.6 (sixth month of the first grade) - September would be the first month.

The staff developed Skill Assessment Tests, and Identity and Body Parts Checklists are described in the section on Diagnostic Testing. The tests were used not only for diagnostic purposes but also to assess student progress as compared to that of two control groups: advantaged and disadvantaged. The disadvantaged groups came from ESEA, Title I areas and the advantaged groups from non-Title I schools in Paterson. In addition, part of the advantaged group came from outside the district. These tests were administered to prekindergarten and kindergarten children in 1970-71 and 1971-72.

* * *

Measures of behavior were made through the use of the Child Behavior Rating Scale developed by Russell N. Cassell, Ed.D., and published by Western Psychological Services, Wilshire Boulevard, Los Angeles, California. It was standardized on two thousand typical pupils and provides a pupil behavior profile in the areas of self adjustment, home adjustment, social adjustment, school adjustment and physical adjustment score. The ratings can be accomplished by the teacher and/or parents. The Dale Avenue teachers did the ratings under the direction of the Title III Researcher. If a teacher could not answer any question the Parent Coordinator called the parent for the answer. The teacher rating the child reads each item on the scale carefully and then places a check mark in the appropriate place where he believes the child belongs for the specific item involved. If the answer for an item is yes, the yes box is checked, if no, the no box is checked. If the answer is somewhere in between the yes and no, a check is marked on the four point scale indicating where the item is most true.

Example:

Child often has trouble controlling temper.

<table>
<thead>
<tr>
<th>YES</th>
<th>X</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Pt.</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
Each box has a weighted value. The yes box gets one point and the no box gets six points. The completed profile, besides giving an actual score for each child, also indicates whether the score is above average, average or below average.

It was the feeling of the Title III staff that when children learn they feel good about themselves. Their self concept improves and so does their behavior. Observation of the children who had used the Performance Objective Curriculum since prekindergarten confirmed this opinion. Since the Child Behavior Rating Scale supplied national norms, it was used in 1972-73 to assess the behavior of the first and second grade students to determine if a standardized behavior scale would confirm teacher and Social Work Coordinator observations.

* * *

![Image of children wearing hats and suits]
Evaluation Results

Evaluation results measured by the Peabody Picture Vocabulary Test (PPVT):

The students in the prekindergarten classes of 1969-70 pre-tested well below the national norm in mean I.Q. on the PPVT, but had made significant gains by posttest time at the close of their prekindergarten years. By the end of their kindergarten years they had made additional gains, bringing them up to the national norm. The prekindergarten class of 1969-70 maintained these gains through the second grade, 1972-73, which was the last year they were tested according to the project's evaluation design.

The mean I.Q. scores of the children who entered pre-kindergarten in 1969 and completed the second grade in 1973 are charted in Table I. The mean I.Q. scores of the children who entered prekindergarten in 1970 and completed the first grade in 1973 are charted in Table II.

Some question had been raised about the use of the PPVT as a measure of I.Q. In order to validate the use of this instrument, thirty first grade children were selected at random, during the 1971-72 school year, and were given both the PPVT and the Wechsler Intelligence Scale for Children (WISC). The WISC is a widely used instrument for assessing intellectual functioning. The correlation was then calculated between the two measures using Pearson's Product Moment Formula. Since the correlation was very high, .74, it was felt that the use of the PPVT as an estimate of I.Q. for the children at the Dale Avenue School was valid.
According to the measures of the PPVT, therefore, the project met its goal of bringing the average I.Q. of the project students up to the national norm and maintaining it at this level for the duration of the project.

Evaluation results measured by the Skill Assessment Tests, and the Identity and Body Parts Checklists:

In the first year of the project, 1970-71, prekindergarten children made significant gains as measured by the Skill Assessment Test, Part I, and the Identity and Body Parts Checklist, Part I, compared to the gains made by the advantaged and disadvantaged control groups. Although the evaluation design required testing of the prekindergarten children only the first year, they were tested also during the second year, 1971-72. In this year too they made significant gains as measured by these tests. Test scores will be found in Table III.

In the first two years of the project, 1970-71 and 1971-72, the evaluation design called for the testing of the kindergarten children on the Skill Assessment Test, Part II, and the Identity and Body Parts Checklist, Part II, and the comparing of their pre and posttest scores to those of advantaged and disadvantaged control groups. In both years the kindergarten children in the Dale Avenue School made significant gains compared to the gains made by the control groups. Scores from these tests will be found in Table IV.

This part of the evaluation design showed that the project students made significant gains on the cognitive skills measured by the two staff developed tests during the pre-kindergarten and kindergarten years compared to both advantaged and disadvantaged control groups.

Education results measured by the Child Behavior Rating Scale:

The Child Behavior Rating Scale which was used with a random sampling of thirty first and second grade children in 1972-73 was given to ascertain whether the experimental Dale Avenue groups would be at the national norm in behavior as they were in performance and I.Q. The students scored very close to
We knew from the observation of the Social Work Coordinator that the first and second grade children had fewer behavior problems than the Dale Avenue children who had been in first and second grade in 1969-70 and 1970-71. The only difference between these groups of children was the use of the Performance Objective Curriculum from Prekindergarten on.

The Child Behavior Rating Scale verified what the Social Work Coordinator had observed. This rating scale was also given to Dale Avenue third grade children who had not been exposed to the Performance Objectives Curriculum until the latter part of second grade. They scored well below the norm of first and second grade children, just as they had in I.Q. on the PPVT and achievement on the Stanford Achievement Test.

Evaluation results measured by the Stanford Achievement Test:

In May 1972, the first grade children at the Dale Avenue School were tested on the Stanford Achievement Test. These children who had used the Performance Objective Curriculum since the middle of their prekindergarten year scored at grade level in reading and mathematics. Their test results are given in Table V.

In May 1973, the first and second grade children were tested on the Stanford Achievement Test. The students in both grades had followed the Performance Objective Curriculum since prekindergarten. The mean scores of students in both grades were at the national norm in reading and mathematics. These scores are in Table VI.

These test scores show that the average academic performance of the first and second grade project students in reading and mathematics was at the national norm. Thus we can see that the scores from the Peabody Picture Vocabulary Test, the staff developed criterion referenced tests, and the Stanford Achievement Tests show that the project achieved its primary goal of bringing the average academic performance
including I.Q. of the Dale Avenue students up to the national norm and maintaining this gain for the three years of the project.

Consideration of the appropriateness of the Dale Avenue Performance Objective Curriculum for educationally disadvantaged students as a general population;

The Dale Avenue School was established for the purpose of developing a new curriculum for the educationally disadvantaged child. Consequently, care was taken throughout the project years to document that the children who attend the Dale Avenue School are representative of the disadvantaged students, i.e. those eligible for ESEA, Title I support, in Paterson.

Three indicators were used to compare the Dale Avenue students with other disadvantaged students in Paterson. The primary indicator of comparability was the Peabody Picture Vocabulary Test scores (I.Q.). Each of the four classes of children who enrolled in the Dale Avenue School from 1969 to 1972 had an average I.Q. as measured by the PPVT of approximately 80. In the school's first year these scores were compared to the scores from a random sample of thirty students who had applied to the Dale Avenue School* but were rejected for lack of space. No statistical difference was found between the groups.

In the project's second year, ESEA, Title I eligible children entering kindergarten in another school in Paterson were tested with the PPVT and found to have an average I.Q. of 77. Testing with the PPVT during the third year of the project on a random sample of ninety students from the first, second, and third grades of the school from which the disadvantaged control groups came showed that the students' average I.Q. was approximately 80.

The other two indicators used to compare the Dale Avenue School children with other Title I eligible children were socio-economic status and ethnic background. The occupation

* The selection procedure for the Dale Avenue School students is described in the introduction.
and income of the parents and the ethnic composition of the classes has been documented for each class entering the Dale Avenue School from 1970 through 1972. Although no statistical comparisons have been made, the percentage of Dale Avenue students falling into the various categories (White, Black, Oriental, family income of $5,000 or below) is comparable to the percentages found among Title I eligible students in other Paterson schools. These indicators establish the comparability of the project students with the general population of disadvantaged students in Paterson.

Comparison of the reading scores of the Dale Avenue project students with those of a control group of disadvantaged students:

The need to improve the reading ability of educationally disadvantaged urban children is widely recognized as one of the major tasks of the American public school system. For that reason it is important to compare the reading scores of the Dale Avenue project students with those of an educationally disadvantaged control group. The reading program within the Dale Avenue performance objective curriculum is detailed in the section which discusses the curriculum.

For this portion of the analysis of the project the control group consisted of children who are eligible for ESEA, Title I support in another school in Paterson. The comparability of this group with the students in the project is established in the preceding paragraphs. Further, a large portion of the children who attend the Dale Avenue School live in the neighborhoods which comprise the district of the control school. The control school, moreover, has ESEA, Title I funds for paraprofessional aides in the classroom, and specialists to teach reading.

The use of a control group rather than gain scores was necessary because of the nature of the Dale Avenue program. While children entering the prekindergarten phase of the project were essentially a random sample of the educationally disadvantaged children in the city, by the end of kindergarten the average I.Q. of the Dale Avenue School project students was not significantly different from the national norm on the PPVT. At the first grade when testing in reading begins, the project students were at the national norm in reading as measured by the Stanford Achievement Test. Measuring gains from year to year is not an appropriate
evaluation of the Dale Avenue project students, since the program prevents initial failure in reading and thus precludes the possibility of their attaining, or needing, significant gain scores.

Three groups of students are available for comparison. By May of 1973 one group of second grade children and two groups of first grade children (1971-72 and 1972-73) had been in the Dale Avenue program since prekindergarten. Each group consisted of approximately 100 children; 50 from each group were selected using a table of random numbers. In the control school, where all children are eligible for ESEA, Title I support, there were approximately 220 children per grade, and again a sample of 50 was drawn from each grade of interest. The data consisted of total reading raw scores on the Stanford Achievement Test. The following shows the groups under study.

<table>
<thead>
<tr>
<th>Test Dates</th>
<th>Dale Avenue</th>
<th>Control Title I School</th>
</tr>
</thead>
<tbody>
<tr>
<td>May, 1972</td>
<td>Random sample of 50 first graders</td>
<td>Random sample of 50 first graders</td>
</tr>
<tr>
<td>May, 1973</td>
<td>Random sample of 50 first graders</td>
<td>Random sample of 50 first graders</td>
</tr>
<tr>
<td>May, 1973</td>
<td>Random sample of 50 second graders</td>
<td>Random sample of 50 second graders</td>
</tr>
</tbody>
</table>

The appropriate t-tests for two independent groups were utilized to test for differences between groups. Total reading raw scores were used in the calculation. The F statistic was utilized to test for homogeneity of variance. There was no significant difference between the variances of the first grade groups. There was a significant difference between the variances of the second grade scores, therefore the Cochran and Cox method was used.
The results of the analysis are given below:

1972 First Grade Level

<table>
<thead>
<tr>
<th></th>
<th>Number</th>
<th>Mean</th>
<th>Variance</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dale Avenue</td>
<td>50</td>
<td>37.50</td>
<td>231.95</td>
<td>15.23</td>
</tr>
<tr>
<td>Students</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>50</td>
<td>28.70</td>
<td>249.01</td>
<td>15.78</td>
</tr>
</tbody>
</table>

\[ t = 2.84 \quad p < .01 \]

1973 First Grade Level

<table>
<thead>
<tr>
<th></th>
<th>Number</th>
<th>Mean</th>
<th>Variance</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dale Avenue</td>
<td>50</td>
<td>40.11</td>
<td>208.51</td>
<td>14.44</td>
</tr>
<tr>
<td>Students</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>50</td>
<td>31.26</td>
<td>245.21</td>
<td>15.66</td>
</tr>
</tbody>
</table>

\[ t = 2.94 \quad p < .01 \]

1973 Second Grade Level

<table>
<thead>
<tr>
<th></th>
<th>Number</th>
<th>Mean</th>
<th>Variance</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dale Avenue</td>
<td>50</td>
<td>49.29</td>
<td>310.11</td>
<td>17.61</td>
</tr>
<tr>
<td>Students</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>50</td>
<td>33.66</td>
<td>135.30</td>
<td>11.63</td>
</tr>
</tbody>
</table>

\[ t = 5.24 \quad p < .01 \]

In all three experimental - control situations, the results show the Dale Avenue Children outscoring the control at the .01 level of significance.
Since the students who followed the Dale Avenue Performance Objective Curriculum are reading on grade level and their reading scores are significantly higher than those of a similar population of educationally disadvantaged students, this curriculum has made a significant contribution to the improvement of the reading ability of urban children.

Comparison of the reading and mathematics abilities of the Dale Avenue project students with those of a control group within the Dale Avenue School:

The students who were in the third grade in 1972-73 in the Dale Avenue School began following the Performance Objective Curriculum only during the middle of their second grade year. This was because the performance objectives for the pre-primary and first grade students were developed first. As a result, these students provide an informal control group for the project students. As a population, they are like the project students in being educationally disadvantaged. They attended a prekindergarten, but one in another school. They spent four years in the Dale Avenue School and thus received the benefits of the pleasant surroundings and the advantage of classroom aides and staff specialists.

From the second to the third grades these students did make significant gains in I.Q., but neither their I.Q.'s nor their achievement levels reached the national norm. Their achievement level in the third grade in reading and mathematics as measured by the Stanford Achievement Test is given in Table VII. These results show clearly the importance of introducing the Performance Objective Curriculum at the pre-primary level, and that in the Dale Avenue School it is the Performance Objective Curriculum not the building that makes the difference in student learning.
I.Q. SCORES MEASURED BY THE PEABODY PICTURE VOCABULARY TEST
FOUR YEARS OF THE PERFORMANCE OBJECTIVE CURRICULUM

The children represented in this graph will complete the third grade at Dale Avenue School in June 1974. They entered Pre-Kindergarten in 1969, well below the national norm in mean I.Q. By the end of Kindergarten, 1971, they were at national norm. They maintained this position through the first and second grades, 1972 and 1973.

--

DALE AVENUE SCHOOL
Paterson, New Jersey

DALE AVENUE URBAN EARLY CHILDHOOD EDUCATION PROJECT

PRE-KINDERGARTEN
PERFORMANCE OBJECTIVES
USED PART OF THE YEAR
1969 - 1970

KINDERGARTEN
FIRST YEAR OF PROJECT
PERFORMANCE OBJECTIVES
USED ALL YEAR
1970 - 1971

FIRST LEVEL
SECOND YEAR OF PROJECT
PERFORMANCE OBJECTIVES
USED ALL YEAR
1971 - 1972

SECOND LEVEL
THIRD YEAR OF PROJECT
PERFORMANCE OBJECTIVES
USED ALL YEAR
1972 - 1973

PEABODY MEAN I.Q.
65 70 75 80 85 90 95 100 105 110 115
I.Q. SCORES MEASURED BY THE PEABODY PICTURE VOCABULARY TEST
THREE YEARS OF THE PERFORMANCE OBJECTIVE CURRICULUM

The children represented in this graph will complete the third grade at Dale Avenue School in June 1975. They entered Pre-Kindergarten in 1970, well below the national norm in mean I.Q. By the end of Kindergarten, 1972, they were at the national norm. They maintained this gain through the end of the first grade, 1973.

DALE AVENUE SCHOOL
Paterson, New Jersey

DALE AVENUE URBAN EARLY CHILDHOOD EDUCATION PROJECT

PRE-KINDERGARTEN
FIRST YEAR OF PROJECT
PERFORMANCE OBJECTIVES
USED ALL YEAR
1970 - 1971

KINDERGARTEN
SECOND YEAR OF PROJECT
PERFORMANCE OBJECTIVES
USED ALL YEAR
1971 - 1972

FIRST LEVEL
THIRD YEAR OF PROJECT
PERFORMANCE OBJECTIVES
USED ALL YEAR
1972 - 1973

PEABODY MEAN I.Q. 65 70 75 80 85 90 95 100 105 110 115
Table III
Prekindergarten Evaluation Results

Skill Assessment Test, Part I (see Appendix A)

Pre and posttest scores for a randomly selected sample of Dale Avenue prekindergarten students compared to those for control groups of advantaged and disadvantaged students. The testing was carried out in the 1970-71 school year:

<table>
<thead>
<tr>
<th>GROUP</th>
<th>N</th>
<th>PRE-TEST MEAN</th>
<th>POST-TEST MEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advantaged</td>
<td>30</td>
<td>63.96</td>
<td>72.73</td>
</tr>
<tr>
<td>Dale Avenue</td>
<td>30</td>
<td>52.20</td>
<td>81.70</td>
</tr>
<tr>
<td>Disadvantaged</td>
<td>30</td>
<td>31.71</td>
<td>43.64</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRE-TEST</th>
<th>POST-TEST</th>
</tr>
</thead>
<tbody>
<tr>
<td>86-90</td>
<td>DALE AVENUE</td>
</tr>
<tr>
<td>81-85</td>
<td></td>
</tr>
<tr>
<td>76-80</td>
<td></td>
</tr>
<tr>
<td>71-75</td>
<td>ADVANTAGED</td>
</tr>
<tr>
<td>66-70</td>
<td></td>
</tr>
<tr>
<td>61-65</td>
<td></td>
</tr>
<tr>
<td>56-60</td>
<td></td>
</tr>
<tr>
<td>51-55</td>
<td></td>
</tr>
<tr>
<td>46-50</td>
<td></td>
</tr>
<tr>
<td>41-45</td>
<td>DISADVANTAGED</td>
</tr>
<tr>
<td>36-40</td>
<td></td>
</tr>
<tr>
<td>30-35</td>
<td></td>
</tr>
</tbody>
</table>
Pre and posttest scores for a randomly selected sample of Dale Avenue prekindergarten students in 1971-72:

<table>
<thead>
<tr>
<th>GROUP</th>
<th>N</th>
<th>PRE-TEST MEAN</th>
<th>POST-TEST MEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dale Avenue</td>
<td>30</td>
<td>31.1</td>
<td>84.7</td>
</tr>
</tbody>
</table>

Note: In 1970-71, the pretesting was done in late October after the Dale Avenue group had been using the Performance Objectives Curriculum for a month and a half. Thus, even pretest scores show Dale Avenue students scoring close to the advantaged groups.

In 1971-72, the pretesting was done early in September. The results show that children entering Dale Avenue do not initially score higher than other educationally disadvantaged groups.
Identity and Body Parts Checklist, Part I (see Appendix B)

Pre and posttest scores for a randomly selected sample of Dale Avenue prekindergarten students compared to those for control groups of advantaged and disadvantaged students. The testing was carried out in the 1970-71 school year:

<table>
<thead>
<tr>
<th>GROUP</th>
<th>N</th>
<th>PRE-TEST MEAN</th>
<th>POST-TEST MEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advantaged</td>
<td>30</td>
<td>67.30</td>
<td>78.13</td>
</tr>
<tr>
<td>Dale Avenue</td>
<td>30</td>
<td>71.70</td>
<td>88.60</td>
</tr>
<tr>
<td>Disadvantaged</td>
<td>30</td>
<td>49.20</td>
<td>57.62</td>
</tr>
</tbody>
</table>

Pre and posttest scores for a randomly selected sample of Dale Avenue prekindergarten students in 1971-72:

<table>
<thead>
<tr>
<th>GROUP</th>
<th>N</th>
<th>PRE-TEST MEAN</th>
<th>POST-TEST MEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dale Avenue</td>
<td>30</td>
<td>55.2</td>
<td>92.2</td>
</tr>
</tbody>
</table>
Note: In 1970-71, the pretesting was done in late October after the Dale Avenue group had been using the Performance Objectives Curriculum for a month and a half. Thus even pretest scores show Dale Avenue students above the advantaged group.

In 1971-72, the pretesting was done early in September. The results show that children entering Dale Avenue initially have scores similar to other educationally disadvantaged groups.
Table IV
Kindergarten Evaluation Results

Skill Assessment Test, Part II (see Appendix C)

Pre and posttest scores for a randomly selected sample of Dale Avenue kindergarten students compared to those for control groups of advantaged and disadvantaged students. The testing was carried out in the 1970-71 school year. The students at Dale Avenue were introduced to the Performance Objective Curriculum in their prekindergarten year.

<table>
<thead>
<tr>
<th>GROUP</th>
<th>N</th>
<th>PRE-TEST MEAN</th>
<th>POST-TEST MEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADVANTAGED</td>
<td>30</td>
<td>79.16</td>
<td>84.50</td>
</tr>
<tr>
<td>DALE AVENUE</td>
<td>30</td>
<td>73.40</td>
<td>84.71</td>
</tr>
<tr>
<td>DISADVANTAGED</td>
<td>30</td>
<td>54.45</td>
<td>62.98</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>86-90</th>
<th>DALE AVENUE</th>
<th>ADVANTAGED</th>
</tr>
</thead>
<tbody>
<tr>
<td>81-85</td>
<td></td>
<td></td>
</tr>
<tr>
<td>76-80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>71-75</td>
<td></td>
<td></td>
</tr>
<tr>
<td>66-70</td>
<td></td>
<td></td>
</tr>
<tr>
<td>61-65</td>
<td></td>
<td>DISADVANTAGED</td>
</tr>
<tr>
<td>56-60</td>
<td></td>
<td></td>
</tr>
<tr>
<td>51-55</td>
<td></td>
<td></td>
</tr>
<tr>
<td>46-50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40-45</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Identity and Body Parts Checklist, Part II (see Appendix D)

Pre and posttest scores for a randomly selected sample of Dale Avenue kindergarten students compared to those for control groups of advantaged and disadvantaged students. The testing was carried out in the 1970-71 school year. The students at Dale Avenue were introduced to the Performance Objective Curriculum in their prekindergarten year.

<table>
<thead>
<tr>
<th>GROUP</th>
<th>N</th>
<th>PRE-TEST MEAN</th>
<th>POST-TEST MEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADVANTAGED</td>
<td>30</td>
<td>86.00</td>
<td>87.50</td>
</tr>
<tr>
<td>DALE AVENUE</td>
<td>30</td>
<td>79.60</td>
<td>88.60</td>
</tr>
<tr>
<td>DISADVANTAGED</td>
<td>30</td>
<td>56.40</td>
<td>64.30</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRE-TEST</th>
<th>POST-TEST</th>
</tr>
</thead>
<tbody>
<tr>
<td>86-90</td>
<td>-</td>
</tr>
<tr>
<td>81-85</td>
<td>-</td>
</tr>
<tr>
<td>76-80</td>
<td>-</td>
</tr>
<tr>
<td>71-75</td>
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<tr>
<td>66-70</td>
<td>-</td>
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<td>61-65</td>
<td>-</td>
</tr>
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<td>56-60</td>
<td>-</td>
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<td>51-55</td>
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</tr>
<tr>
<td>46-50</td>
<td>-</td>
</tr>
<tr>
<td>40-45</td>
<td>-</td>
</tr>
</tbody>
</table>

DALE AVENUE
ADVANTAGED
DISADVANTAGED
Pre and posttest scores for a randomly selected sample of Dale Avenue kindergarten students compared to those of advantaged and disadvantaged control groups. The testing was carried out in 1971-72. The Dale Avenue students had followed the Performance Objective Curriculum in prekindergarten.

<table>
<thead>
<tr>
<th>GROUP</th>
<th>N</th>
<th>PRE-TEST MEAN</th>
<th>POST-TEST MEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADVANTAGED</td>
<td>30</td>
<td>74.72</td>
<td>80.12</td>
</tr>
<tr>
<td>DALE AVENUE</td>
<td>29</td>
<td>66.19</td>
<td>77.53</td>
</tr>
<tr>
<td>DISADVANTAGED</td>
<td>27</td>
<td>54.88</td>
<td>67.09</td>
</tr>
</tbody>
</table>

Note: The 1970-71 kindergarten group was not tested in prekindergarten. The 1971-72 kindergarten group was tested in kindergarten. T-sir scores are given in Table III.
Pre and posttest scores for a randomly selected sample of Dale Avenue kindergarten students compared to those of advantaged and disadvantaged control groups. The testing was carried out in 1971-72. The Dale Avenue students had followed the Performance Objective Curriculum in prekindergarten.

### IDENTITY AND BODY PARTS TEST, Part II

<table>
<thead>
<tr>
<th>GROUP</th>
<th>N</th>
<th>PRE-TEST MEAN</th>
<th>POST-TEST MEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advantaged</td>
<td>30</td>
<td>81.18</td>
<td>90.73</td>
</tr>
<tr>
<td>Dale Avenue</td>
<td>29</td>
<td>81.03</td>
<td>86.91</td>
</tr>
<tr>
<td>Disadvantaged</td>
<td>27</td>
<td>66.51</td>
<td>80.96</td>
</tr>
</tbody>
</table>

### PRE-TEST vs. POST-TEST

- **ADVANTAGED**
- **DALE AVENUE**
- **DISADVANTAGED**
TABLE V

Child Behavior Rating Scale

This scale was used in the spring of 1973 by the Dale Avenue project staff and the teaching staff of the Dale Avenue School to rate the behavior of a randomly selected sample of the first and second grade students. These students had been in the Performance Objective Curriculum since prekindergarten. The scores which represent the national norm are between 421 and 513.

<table>
<thead>
<tr>
<th>TOTAL ADJUSTMENT PERSONALITY</th>
<th>FIRST GRADE DALE AVENUE</th>
<th>SECOND GRADE DALE AVENUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Above Average</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>552</td>
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<tr>
<td></td>
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<td></td>
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<td></td>
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<td>441.4</td>
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<td>454.9</td>
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<tr>
<td></td>
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<td></td>
<td>360</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>267</td>
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</tr>
</tbody>
</table>

Note: The scores of these two groups of children fell within the national norm in behavior (see pages 50 and 51) just as they had in I.Q. and achievement.
Table VI

Stanford Achievement Test

The mean scores for the first grade students at the Dale Avenue School in 1971-72 are given below. The test was administered in May 1972. The students had been introduced to the Performance Objective Curriculum in prekindergarten.

**PRIMARY 1, GRADE 1**

<table>
<thead>
<tr>
<th></th>
<th>Word</th>
<th>Paragraph</th>
<th>Vocabulary</th>
<th>Spelling</th>
<th>Word Study Skills</th>
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<tbody>
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<td>1.8</td>
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<td>1.8</td>
<td>2.0</td>
<td>2.0</td>
<td>1.7</td>
<td>1.8</td>
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</table>

The mean scores of the first and second grade students at the Dale Avenue School in 1972-73 are given below. The test was administered in May 1973. The first and second grade students had had the Performance Objective Curriculum since prekindergarten.

**PRIMARY 1, GRADE 1**

<table>
<thead>
<tr>
<th></th>
<th>Word</th>
<th>Paragraph</th>
<th>Vocabulary</th>
<th>Spelling</th>
<th>Word Study Skills</th>
<th>Arith.</th>
<th>Total Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEAN</td>
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**PRIMARY 2, GRADE 2**

<table>
<thead>
<tr>
<th></th>
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<tr>
<td>MEAN</td>
<td>2.9</td>
<td>2.7</td>
<td>3.4</td>
<td>3.4</td>
<td>3.0</td>
<td>3.3</td>
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<table>
<thead>
<tr>
<th></th>
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<th>Total Reading</th>
<th>Total Math.</th>
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<tr>
<td>MEAN</td>
<td>3.1</td>
<td>3.0</td>
<td>2.8</td>
<td>3.1</td>
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</table>
**Stanford Achievement Test**

The mean scores for the third grade students at the Dale Avenue School in 1972-73 are given below. The test was administered in May 1973. These students are a control group for the project students. The third graders were introduced to the Performance Objective Curriculum in the middle of their second grade year and followed it throughout their third grade year.

### PRIMARY 2, GRADE 3

<table>
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<tr>
<th></th>
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<td>2.9</td>
<td>2.9</td>
<td>3.4</td>
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<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>MEAN</td>
<td>3.4</td>
<td>3.0</td>
<td>2.8</td>
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</table>
Results of the onsite evaluations of the project conducted by the New Jersey ESEA, Title III program and the United States Office of Education.

The New Jersey ESEA, Title III program requires that each New Jersey ESEA, Title III project have an annual onsite evaluation by consultants hired for this purpose by the New Jersey State Department of Education. The evaluators determine whether the program is being managed according to the plan and whether the evaluation design is being carried out correctly.

At the Dale Avenue project these evaluations included the consultants' meeting with the Project Director to go over all of the project's activities, and meeting with the teachers to verify the activities conducted in the staff training program. The evaluators also met with several parents of Dale Avenue students to discuss the parent role in the program. The Project Researcher and Project Psychometrician went over the testing procedures and data with a member of the evaluation team. At the conclusion of the project's first and second years, the onsite evaluators reported that the project was meeting all of its requirements.

At the conclusion of the project's third year, the onsite evaluation was carried out according to new standards and guidelines of the United States Office of Education and the national ESEA, Title III program. Through this procedure the Dale Avenue Project was studied by a team of four
evaluators from Columbia University (New York) whose work included a one day visit to the project site. As a result the project was validated as innovative, successful, cost-effective, and exportable. This project was one of twenty-four invited to give a presentation at the ED-FAIR '73 held in Washington, D.C., in May 1973, and sponsored by the United States Office of Education. In further recognition of the validation, the project received a Certificate of Merit from Sidney P. Marland, Jr., who at the time held the position of Assistant Secretary for Education. The certificate is reproduced on the following page.
The Dale Avenue Project
as a Demonstration Site

As a result of the Dale Avenue Project's validation by the standards and guidelines of the United States Office of Education and consistent with the purposes of the Elementary and Secondary Education Act, Title III, the Dale Avenue Project is now funded as a demonstration site. Persons interested in learning about the project, observing the use of the Performance Objective Curriculum in the classroom, and talking to the staff of the school and project are welcome to visit the school. One day a week is set aside to accommodate visitors. The Performance Objective Curriculum, the project designed tests including those for the mastery of the performance objectives, and the training materials required for the introduction of the project into another district are available at cost from the project staff. For educators interested in replicating the project, wholly or in part, the project staff offers a two day (12 to 15 hour) training program and four followup consultations. To be eligible for this training, a district must give evidence of intent to use the program and willingness to answer evaluation questionnaires on the impact of the program's adoption. The mutual agreements required between the Paterson Public Schools as the producer district and consumer districts are specified in a Producer-Consumer Agreement which will be found on the following pages.

There is no charge for the services of the project staff. The cost of these services and the preparation and printing of the project's dissemination materials is borne
by the New Jersey ESEA, Title III dissemination program. The cost of replicating the Dale Avenue Project to a consumer district is basically that of staff training, follow-up supervision, and evaluation. Provision must be made for the continuing help, encouragement, and support of staff. After the initial startup costs for staff training, the program's maintenance cost should not require an increase in the current operating expenses of most districts. Some districts may find that the use of the Performance Objective Curriculum will reduce the students' need for remediation. This in turn should represent a decrease in operating expenditures.

Persons who wish to visit the Dale Avenue School to observe the project in action should write or call the Project Director to make the necessary arrangements. School districts are encouraged to send the following team for the initial visit: superintendent or assistant superintendent of schools, principal or vice principal, curriculum specialist, teacher, and member of the Board of Education. A map to the Dale Avenue School will be found in Appendix E.
Producer-Consumer Agreement
for the Replication of the
Dale Avenue Project:

A Performance Objective
Curriculum for Prekindergarten
through Third Grade

The Paterson Public Schools through the ESEA, Title III Dale Avenue Project, and with the authorization of the New Jersey State Department of Education, Office of Program Development, offer to New Jersey educators the training services and materials required to replicate the basic components of the Dale Avenue Project.

The minimum level of replication is the use of the Performance Objective Curriculum for individual and group instruction and as an evaluation tool. Two other important components of the project are a forty-five minute per morning small group reading program with students grouped according to achievement test scores, and a volunteer parent program which will include a parent committee and volunteer parents to assist teachers to replicate the project.

The project is appropriate for instruction in prekindergarten through grade three. It should be introduced
into a school only at the prekindergarten, kindergarten, or first grade levels and then phased in at the rate of one additional grade level per year.

PRODUCER SCHOOL DISTRICT

Representing the Producer School district, the staff of the Dale Avenue Project will provide the following services and materials to the staff of a Consumer school district that makes a commitment to replicate the project:

1. Provide dissemination brochures describing the Dale Avenue Project.

2. Provide record books, forms, performance objective tests, Prekindergarten and Kindergarten Skill Assessment and Identity and Body Parts Checklist, Preprimary - Primary Performance Objectives at cost.

3. Loan filmstrip and sound cassette of "Performance Objectives" for use in the Consumer School District.

4. Provide a twelve to fifteen hour (2 day) training workshop conducted at the Consumer district, an EIC, or at the New Jersey Department of Education for up to twenty-five people selected by the Consumer District. Principals as well as teachers and aides of consumer schools should attend the training workshop.
Subjects covered in the Workshop are:

Rationale for Dale Avenue Project
Explanation of Performance Objectives
Explanation of Testing Procedures
Peabody Picture Vocabulary Tests
Dale Avenue Tests
Teaching and Testing Performance Objectives
Use of the Test Kit
Use of Record Book
Grouping for Performance Objectives
The involvement of parents
Room setup
Grouping and individualizing instruction testing
Complete description of the first week of school

Description of teaching materials - Peabody Language Development Kit, Part-Whole Relationships, Matrix Kits (Math and Language), Large pictures of city, country, animals on farm, zoo, home, etc.

Demonstrations with Children

Peabody Test, Identity and Body Parts Test (Pre-K & K)
Testing Performance Objectives

Building Equipment

Test Kit for Performance Objectives

5. Provide up to four onsite followup consultations to personnel selected by the Consumer School to replicate the project.
CONSUMER SCHOOL DISTRICT

The Consumer School District as a participating member of the Producer-Consumer Model of the Dale Avenue Project at the Commitment Level, agrees to the following procedures:

1. Introduction of the Performance Objective Curriculum for individual and group instruction and as an evaluation tool at the prekindergarten, kindergarten, and/or first grade level.

2. Assignment of the responsibility for the supervision and use of the Performance Objective Curriculum to one individual who will act as the liaison with the Dale Avenue Project staff and who will schedule and arrange for the school (district) personnel to attend the training and the followup consultations.

3. Provide materials at the training workshop to make test kits. Materials will include scissors, rulers, colored paper, index cards, manila envelopes, colored pencils, file card boxes, beads, textured materials, and templates of circles, squares, and triangles. Each participant in the workshop will make a test kit.

4. Cooperate with the Dale Avenue Project staff and the New Jersey State Department of Education, Office of Program Development, by completing questionnaires which will serve to identify and evaluate those changes which occurred in the Consumer School District as a result of the Dale Avenue Project Dissemination Program.
<table>
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<tr>
<td>Address:</td>
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<tr>
<td>Dale Avenue Title III Project</td>
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<tr>
<td>Dale Avenue School</td>
</tr>
<tr>
<td>21 Dale Avenue</td>
</tr>
<tr>
<td>Paterson, New Jersey 07505</td>
</tr>
<tr>
<td>(201) 271-3375</td>
</tr>
<tr>
<td>Dr. Norman S. Weir</td>
</tr>
<tr>
<td>Acting Superintendent of Schools</td>
</tr>
<tr>
<td>Joseph Di Gangi</td>
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<td>Building Principal</td>
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<tr>
<td>Helen Hanson</td>
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<td>Project Director</td>
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<td>Vera P. Thompson</td>
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<td>Director of Funded Programs</td>
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<td>Liaison Person</td>
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APPENDIX A: Skill Assessment Test, Part I
APPENDIX B: Skill Assessment Test, Part II
APPENDIX C: Identity and Body Parts Checklist, Part I
APPENDIX D: Identity and Body Parts Checklist, Part II
APPENDIX E: Means and Standard Deviations for the Skill Areas in the Performance Objective Curriculum, First and Second Grades
APPENDIX F: Map to the Dale Avenue School, Paterson, New Jersey
PREKINDERGARTEN SKILL ASSESSMENT TEST, Part I

NAME: ___________________________ DATE: ________________

1. Identities:

   

2. Names: purple brown yellow green blue red black orange

3. Birthday: When is your birthday?

4. Rote count: "count for me"

   1 2 3 4 5 6 7 8 9 10

5. Identify numerals: (random order)

   1 2 3 4 5 6 7 8 9 10

6. Count objects in groups of: 1 2 3 4

7. A. Sees likes and differences: Procedure: Present child with three like red circles. Question: Are these the same?

   Why?

   Is there anything else the same?

   B. Child is then presented with an additional larger blue circle. Question: "Is this the same as these?"

   Why?

   Date: __________________________

   Signed: _________________________

   (Appendix A)
KINDERGARTEN SKILL ASSESSMENT TEST, Part II

NAME: ___________________________ DATE: __________

1. Identities:
   A. 
      [Shape images]
      (If they know all the shapes)
   B. Make a square (from 2 triangles)
      Make a rectangle (from 2 squares)
   C. Trace a square, triangle, circle
   D. Make a square, triangle, circle

2. Names:
   purple  brown  yellow
   green  blue  red
   black  orange  gray
   pink  tan

3. Answers questions:
   A. Is this color shiny or dull?
   B. Is this color light or dark?
   C. What two colors make pink?
   D. What two colors make green?
   E. What two colors make gray?
   F. What two colors make tan?

4. Answers questions or names:
   A. When is your birthday?
      What month is your birthday?
   B. Name the months of the year.
   C. How many months in the year are there?
   D. Name the days of the week.
   E. How many days in the week are there?
   F. Name the seasons.
   G. How many seasons in the year are there?

(Appendix B, p. 1)
5. Responds and demonstrates:
   A. Give me the smooth object.
   B. Give me the soft object.
   C. Give me the flat object.
   D. Is this object smooth or rough?
   E. Is this object soft or hard?
   F. Is this object flat or round?

6. Demonstrates: (Give it to examiner)
   A. Which circle is small?
   B. Which circle is middle sized?
   C. Which circle is large (or big)?

7. Demonstrates:
   A. Put the pencil next to the paper.
   B. Put the pencil under the paper.
   C. Put the pencil on top of the paper.
   D. Put the pencil in front of the paper. (hold paper up)
   E. Put the pencil in back of the paper.
   F. Put the pencil between two pieces of paper.
   G. Which block is on top?
   H. Which block is in the middle?
   I. Which block is on the bottom?

8. Identifies numerals. (random order) What number is this?
   1 2 3 4 5 6 7 8 9 10 11 12 13
   14 15 16 17 18 19 20

9. Counts objects in groups of:
   1 2 3 4 5 6 7 8 9 10

10. Rote counts. "Count for me."
    A. 1, 2, 3, 4, 5, - 6, 7, 8, 9, 10 - 11, 12, 13, 14, 15,
       - 16, 17, 18, 19, 20
    B. Rote counts backward. "Count backward for me."
       10, 9, 8, 7, 6, 5, 4, 3, 2, 1,

(Appendix D, p. 2)
C. Repeats a group of 2, 3, 4, and 5 numbers at 2-second intervals.

6 5
7 3 1
5 2 7 6
3 2 5 1 7

11. A. Sees likes and differences. (color, size and shape)
Procedure: Present the child with 3 like red circles. Question: Are these the same? Why?
Is there anything else the same?

B. Child is then presented with an additional larger blue circle. Question: Is this the same as these?
Why?

C. (Using Pictures). Pick the item that goes with the item shown.

1. Shoes - Which of these goes with the shoes? (Show pictures of socks, bottle, hat). Objects commonly associated with each other.

2. An apple - Which of these goes with an apple? (Show pictures of banana, pocketbook, dog). Objects which share physical attributes.

3. A chair - Which of these goes with a chair? (Show pictures of a couch, a ball, an orange). Objects which serve similar functions.

12. A. Copies sequence of 2, 3, 4, beads. (actual beads) "Make it just like mine."

B. Produces a pattern of 2, 3, 4, beads that they see in picture form.

(Appendix B, p. 3)
PRE-K IDENTITY AND BODY PARTS CHECKLIST, Part I

CHILD'S NAME: __________________________ ( ) a.m. ( ) p.m. Pre-K

I. Identity Checklist
   A. What is your name? __________________________
   B. Who is your teacher? __________________________
   C. How old are you? __________________________
   D. Where do you live? __________________________
   E. What number bus do you ride on? __________________________

II. Body Parts Checklist
   A. "I am going to point to parts of my body and you name them."

   What is this?
   Eyes __________________________ How many? __________________________
   Nose __________________________ How many? __________________________
   Mouth __________________________ How many? __________________________
   Teeth __________________________
   Tongue __________________________
   Eyebrows __________________________
   Eyelashes __________________________
   Ears __________________________ How many? __________________________
   Neck __________________________
   Elbow __________________________ How many? __________________________
   Arm __________________________ How many? __________________________
   Hand __________________________ How many? __________________________

(Appendix C, p. 1)
Fingers

How many on one hand?
How many on both hands?

Wrist

How many?

Feet

How many?

Ankle

How many?

Leg

How many?

Back

Stomach

Hair

DATE

SIGNED

(Appendix C, p. 2)
KINDERGARTEN AND BODY PARTS CHECKLIST, Part II

CHILD'S NAME__________________________( ) a.m. KIN.________ ( ) p.m. KIN.________

I. Identity Checklist

A. What is your name?__________________________
B. Who is your teacher?__________________________
C. How old are you?__________________________
D. Where do you live?__________________________
E. What number bus do you ride on?__________________________
F. What is the name of this school?__________________________
G. What grade are you in?__________________________
H. Are you a male or a female?__________________________
I. Which is your right hand?__________________________
J. Which is your left hand?__________________________

II. Body Parts Checklist

A. "I am going to point to parts of my body and you name them."

Eyes______ How many?__________________________
Nose______ How many?__________________________
Nostrils______ How many?__________________________
Mouth______ How many?__________________________
Teeth______ How many?__________________________
Tongue______ How many?__________________________
Cheeks______ How many?__________________________
Eyebrows______ How many?__________________________
Eyelashes______ How many?__________________________
Forehead______ How many?__________________________
Ears______ How many?__________________________
Neck______ How many?__________________________
Chin______ How many?__________________________
Elbow______ How many?__________________________
Arm______ How many?__________________________
Hand______ How many?__________________________
Fingers______ How many on one hand?__________
How many on both hands?__________
Chest______ How many?__________________________
Wrist______ How many?__________________________
Feet______ How many?__________________________
Toes______ How many on one foot?__________
How many on both feet?__________

(Appendix D, p. 1)
Ankle______________ How many?
Leg______________ How many?
Knee______________ How many?
Back______________ How many?
Shoulder______________ How many?
Stomach______________
Hair______________
Waist______________
Hips______________

DATE________________________

SIGNED________________________

(Appendix D, p. 2)
In 1972-73 the first and second grade students at the Dale Avenue School were pre and posttested in the ten skill areas of the Performance Objective Curriculum. These students had followed the curriculum since their prekindergarten years. The standard deviations are given in parentheses.

**LISTENING**  
(34 items)

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**NAMING**  
(42 items)

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<td>35.9 (3.72)</td>
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<tr>
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<td>40.628 (2.09)</td>
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**OBSERVING**  
(16 items)

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<td>15.635 (0.939)</td>
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<td>14.078 (0.205)</td>
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(Appendix E, p. 1)
### SPEAKING
(22 items)

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### PERCEPTUAL MOTOR SKILLS
(21 items)

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<td>(0.06)</td>
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### WRITING AND MOTOR SKILLS
(24 items)

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### CLASSIFICATION
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</tbody>
</table>

(Appendix E, p. 2)
## MATH
*(79 items)*

<table>
<thead>
<tr>
<th></th>
<th>First Grade</th>
<th>Second Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning of Year</td>
<td>16.478</td>
<td>36.018</td>
</tr>
<tr>
<td></td>
<td>(1.309)</td>
<td>(1.49)</td>
</tr>
<tr>
<td>End of Year</td>
<td>37.500</td>
<td>58.79</td>
</tr>
<tr>
<td></td>
<td>(1.00)</td>
<td>(10.419)</td>
</tr>
</tbody>
</table>

## DECODING-ENCODING
*(163 items)*

<table>
<thead>
<tr>
<th></th>
<th>First Grade</th>
<th>Second Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning of Year</td>
<td>7.947</td>
<td>50.037</td>
</tr>
<tr>
<td></td>
<td>(4.904)</td>
<td>(10.607)</td>
</tr>
<tr>
<td>End of Year</td>
<td>36.16</td>
<td>107.836</td>
</tr>
<tr>
<td></td>
<td>(1.397)</td>
<td>(16.108)</td>
</tr>
</tbody>
</table>

## SERIATION
*(11 items)*

<table>
<thead>
<tr>
<th></th>
<th>First Grade</th>
<th>Second Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning of Year</td>
<td>*</td>
<td>10.413</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.417)</td>
</tr>
<tr>
<td>End of Year</td>
<td>10.206</td>
<td>11.00</td>
</tr>
<tr>
<td></td>
<td>(0.306)</td>
<td>(0)</td>
</tr>
</tbody>
</table>

* During the first and second year of the project Seriation was not a part of the prekindergarten-kindergarten form of the performance objectives. It was not until the third year of the project that these grades were given the combined form of prekindergarten through third grade performance objectives which included Seriation. The first grade teachers, therefore, did not pretest on Seriation during the third year of the project, as their children had not been exposed to it the previous years.

(Appendix E, p. 3)