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ABSTRACT

Evaluated was the Summer Education Program for Neurologically and Physically Handicapped Children, designed to improve the performance of 145 children (6-16 years old) in the following areas--gross motor skills, swimming, fine motor skills, socialization with nonhandicapped peers, and independent daily living skills. The program included the following activities: pool hydrotherapy and swimming instruction, physical and occupational therapy, reading and mathematics instruction, arts and crafts, music, instruction in game skills, field day competition, and encouragement of parents to assist and participate in the program. Findings indicated that the program met its objectives of demonstrating a statistically significant improvement of its participants in program skill areas; and that the program as implemented coincided with the program as described in the proposal. (Appended materials include sample observation report forms, the rating scale, a schedule of daily activities, a sample parent questionnaire, and the program abstract.) (SBH)

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Summer Education Program for Neurologically and  
Physically Handicapped Children

Summer 1975

Prepared by  
Dr. Ronald S. Ellis

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An evaluation of a New York City school district educational project funded under Title VI-B Education of the Handicapped Act and performed for the Board of Education of the City of New York for the Summer 1975

Dr. Anthony J. Polemeni, Director

BOARD OF EDUCATION OF THE CITY OF NEW YORK  
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## Chapter I: THE PROGRAM

The Summer Education Program for Neurologically and Physically Handicapped Children was designed to serve 145 children between the ages of six and 16 and attending any grade from one through nine. The pupils selected for inclusion in the program were receiving instruction during the 1974-1975 school year in one of the following ways. They were:

- a. enrolled in classes for neurologically impaired children
- b. enrolled in classes for severely or moderately physically handicapped children
- c. receiving Home Instruction

The program was conducted for six weeks from July 1, 1975 to August 8, 1975 and was leased at two sites: the Evander Childs High School in the Bronx and the Bulova School of Watchmaking in Queens. Children were selected as follows:

- a. Seventy children from classes for severely handicapped children in Brooklyn and Queens were assigned to the Bulova School.
- b. Thirty children receiving Home Instruction in Brooklyn and Queens were assigned to the Bulova School.
- c. Forty-five children from classes for neurologically impaired children in the Bronx were assigned to Evander Childs High School.

As a result of participation in the project it was believed that children would improve in the following areas:

- a. gross motor skills for neurologically impaired and physically handicapped children
- b. dexterity in swimming for neurologically and physically handicapped children

- c. fine motor skills for neurologically impaired and physically handicapped children
- d. socialization of handicapped children with their non-handicapped peers
- e. independent daily living skills of the neurologically impaired and physically handicapped children.

It was also expected that as a result of participation opportunities would be provided for the following:

- a. acquisition of new skills
- b. participation in outdoor athletic events, modified sports activities and competition
- c. broadening of the student's cultural background
- d. increasing the interest and involvement of the parents of the neurologically impaired and physically handicapped children

To accomplish these results the pupils were divided by age into five distinct groups. Each group had five specific time blocks of activities based mainly on age and individual aptitude. The procedures used group instruction. Where pupils required assistance individual instruction was given. In general, group instruction was employed to ensure more efficient utilization of teaching resources.

The program included the following specific activities: pool hydrotherapy and swimming instruction, physical and occupational therapy, reading and mathematics instruction, arts and crafts, music, instruction in game skills (volleyball, kickball, shuffleboard, table tennis, etc.), and field day competition. In addition, provisions were made for trips to cultural centers and places of interest.

The students received five hours of instruction per day. The

program ran from 9:00 A.M. to 2:00 P.M. Each teacher taught five periods. The periods were reading, mathematics instruction, swimming, arts and crafts, and other organized recreation. There were five periods of instruction. The groups were programmed for four time blocks with additional time blocks allotted to the swimming program and activities for younger children.

Within the program Title VI funds were used specifically for the two project coordinators, twenty teachers, one school secretary, and four paraprofessionals (educational assistants). The specific activities engaged in by these persons will now be described.

#### Activities of the Staff Funded by Title VI

Project coordinators (2). One project coordinator was responsible for each site. Each coordinator was a licensed supervisor affiliated with the Bureau for the Education of the Physically Handicapped of the Board of Education of the City of New York.

Each coordinator initiated and administered the project at his site through involvement in pre-planning, planning and coordination of the activities of the program. It was their function to ensure that the instructional program which can best be described as individualized, diagnostic and prescriptive was implemented. It was their function to monitor the program in order to determine whether the program objectives were being met and to assist any personnel who required assistance in meeting the program objectives.

The program coordinators continuously observed the instructional activity in order to provide a basis for recommendations which they

made to their staff concerning ways that improvements in materials, methods or other techniques could be implemented.

Teachers (20). Licensed Home Instruction Teachers (5) and Teachers of Health Conservation Classes (11) implemented individual and small group instructional strategies in game skills, reading and mathematics, arts and crafts, independent daily living skills and other activities. It was their function, moreover, to accompany the children to the swimming pool, to swim with the children and to accompany the children on trips.

There were, in addition, swimming teachers (4) who were responsible for the instruction of swimming. These teachers developed individualized programs for each child and were responsible for the safety and supervision of all of the children in the pool. There were two swimming instructors (certified as swimming instructors by the Board of Education, City of New York) at each site.

Paraprofessionals (4). Two Educational Assistants were assigned to each site. They worked under the supervision of the teachers and assisted and supported the program's activities. For example, paraprofessionals were responsible for the care and storage of the instructional materials. They assisted pupils in boarding and exiting the buses upon arrival, at dismissal, and during special trips or excursions. The paraprofessionals also assisted in the maintenance of poolside safety.

School secretary (1). The function of the school secretary was to maintain personnel records, prepare payrolls and assist in preparing

and typing all reports and correspondence.

Attempts were made to encourage parents to assist and participate in the program. They were invited to visit the sites and to observe the children's activities. During their visits they were informed of their children's strengths and weaknesses. They were told of their children's progress and they were given information about how they could support the instructional strategies of the program through follow-up activities in the home. Parents were encouraged through invitations which were extended to them to accompany and assist classes on trips, volunteer their services, attend workshops, attend field day. In addition, a Parent's Visitation Day was held on July 25, 1975, a Workshop for Parents was held on August 1, 1975, and an Open House was held on August 5, 1975.

## Chapter II: EVALUATIVE PROCEDURES

On-site visits were made by the project evaluator and interviews were held on site with the project coordinators, other professional staff, and the paraprofessionals. In addition, conferences were held with central headquarters supervisory personnel, including the project coordinator.

To determine the effectiveness with which the evaluation objectives were attained with the total population of 95 students, the evaluator observed the program in operation on two separate occasions (July 22, 1975 and July 24, 1975). Observation reports are appended (see Appendix A).

The objectives of the evaluation are:

Evaluation Objectives 1 through 5: To determine whether as a result of participation in individually designed components of this program, there will be a statistically significant improvement in each of the following skills:

1. swimming dexterity
2. fine and gross motor coordination
3. game skills
4. social relationships
5. independent daily living skills

Evaluation Objective 6: To determine the extent to which the program, as actually carried out, coincided with the program as described in the project proposal.

For the determination of Evaluation Objectives 1 through 5

appropriate rating scales were devised by the program administrators in cooperation with their staff (see Appendix B). Students were rated on a one (no knowledge) to five (excellent) scale by the teachers involved in cooperation with the Program Coordinator for the center which the child attends. Initial ratings were made during the first week of the program and final ratings were made during the last week of the program.

For the determination of evaluation objective 6 the evaluator of the program utilized all available information such as observation reports, time schedules, programs, instructional materials and products, and parent questionnaires as a basis for making a statement concerning the extent of program implementation. Furthermore an analysis of this information was used to provide a description of whatever discrepancies exist between the project proposal and the program as it was implemented.

For Evaluation Objectives 1 through 5, the data derived from the pre-post administration of the rating scale were analyzed for statistical significance at the  $\alpha = .05$  level of significance by means of the Wilcoxon matched-pairs signed-ranks test.

Prior to analysis, the data from the rating scale were combined so that the results of the analysis could provide a more meaningful statement regarding the results of the summer program.

Categories on the rating scale did not exactly coincide with the skills listed in Evaluation Objectives 1 through 5. Further examination of the categories of the rating scale (see Appendix B)

indicates that not all of the skills listed in the proposal and consequently in the evaluation design have equal value in terms of degree of abstraction. Certain skill categories on the rating scale were therefore combined under the construct they signified. All data subsumed under the construct variable heading were combined. The difference between the initial and final ratings of these combined skill categories (construct variable headings) was submitted to the Wilcoxon matched-pairs signed-ranks test.

Listed below are the variable headings and the skill categories grouped under each heading for the purpose of analysis.

Variable	Skill Categories	Category Designation on Rating Scale
Fine and Gross Motor Skills	Face float and flutter kick	IV 2
	Combination kick and flutter kick	IV 3
	Deep water test	IV 4
	Play skills	V 9
	Play with puzzles and chalkboard activities	V 10
Social Relationships	Relationship with peers	II 1
	Relationship with adults	II 2
Independent Daily Living Skills	Self feeding	VI 1
	Self dressing	VI 2
	Washing up skills	VI 3
	Toileting	VI 4
	Table manners	VI 5

Statistical analysis of each variable is based upon the difference between the pretest and posttest sums of the rating scale values for the categories shown in the "skill categories" column.

Although the evaluation design specifies that 145 children would participate in the program only 95 subjects were involved.

The average attendance at the Bronx site was 30 pupils and the average attendance at the Queens site was 65 children.

Late funding coupled with a decrease in budget allocation are two factors which combined to reduce the number of children which the project was able to serve. Moreover, there was a dropout rate initially which brought the initial number of participants in the program to approximately 95. Of the 95 subjects, only 89 were rated both initially and finally using the rating scale. This can be attributed to absence at the time the rating scale was administered.

## Chapter III: FINDINGS

Evaluation Objectives 1 through 5

To determine whether as a result of participation in individually designed components of this program, there will be a statistically significant improvement in each of the following skills:

1. swimming dexterity
2. fine and gross motor coordination
3. game skills
4. social relationships
5. independent daily living skills

The performance of the children demonstrated a statistically significant improvement in each of the areas indicated in Evaluation Objectives 1 through 5. The evaluation objectives 1 through 5 can therefore be held to have been attained.

Table 1 shows the results of the Wilcoxon matched-pairs signed-ranks test. The analysis was done on the data obtained from the initial and final administration of the rating scale (see Appendix B).

Table 1

Analysis of Rating Scale Data with Wilcoxon Matched-Pairs Signed-Ranks Test

Variable	N	Z Score
Fine and Gross Motor	78	-7.06*
Social Relationships	67	-6.84*
Independent Daily Living	40	-5.51*

\*significant at  $\alpha = 0.01$  level of significance

Although 95 subjects were involved in the program, only 89 had rating scale data that were acceptable. The data were organized in the manner indicated in Chapter II and each variable analyzed for statistical significance by means of the Wilcoxon matched-pairs signed-ranks test. Values of  $Z = 2.58$  or greater are required for significance at the 1 percent level of significance. The values in Table 1 exceed that value. Values for N reported in Table 1 relate to the statistical procedure. The test requires that pairs in which both members attain identical scores be dropped from the sample. It was also necessary that an additional 35 subjects be dropped from the sample used to test the Independent Daily Living Skills variable. Pretest data were not available for those 35 subjects dropped.

#### Evaluation Objective 6

To determine the extent to which the program, as actually carried out, coincided with the program as described in the project proposal.

The program as implemented coincides with the program described in the proposal. Although facilities used in the project were adequate, some modification of the space as it is presently constituted at the Queens site is recommended. (See Appendix A observation report for July 22, 1975.) All staff were observed to be working actually toward accomplishing the goals and objectives of the program. (See Appendix A.) On the basis of what was observed by the evaluator (see Appendix A) the program appears to be servicing the needs of the children as outlined in the proposal. Furthermore, an examination

of Daily Activity Schedules, Parent Questionnaires and a variety of other materials provides documentation for the degree to which program implementation coincided with the project proposal. (See Appendix C.)

The recommendations from the last prior study are each listed below with a statement concerning the degree to which that recommendation has been implemented in the current program.

1. In view of the positive findings of the evaluation, the project should be recycled for summer of the next year and, if possible, expanded. Consideration should be given to extending the program to include centers, with swimming facilities in all boroughs of New York City.

The program was recycled. Thus far it has not been extended beyond the two sites in Queens and the Bronx. However, it was extended in time to six weeks.

2. Efforts should be made to inform program coordinators at an earlier date regarding approval and amount of budget for future programs so that wider publicity of program opportunities is possible.

It is not clear what efforts were made regarding this recommendation. The ability to comply with this recommendation may not have been within the control of those most concerned about the program's effectiveness.

3. Because of the importance of early intervention, efforts should be made to enroll a greater number of younger pupils who exhibit early deficits usually found among brain-injured pupils. These so-called high-risk, young pupils should be recruited from programs such as the Board of Education Evaluation and Placement Centers, public and private nursery school programs and kindergartens, among others. A quick screening instrument should be selected or developed for the purpose of selecting these high-risk pupils.

The program was extended to include those pupils receiving home instruction.

4. Program personnel should explore the possibility of housing the programs in facilities that permit the integration of the target population with pupils having other disabilities, as well as with nondisabled pupils. This can be accomplished by having several summer programs within the same school building during the same period of time. Such an arrangement would be beneficial to all groups with respect to the development of social skills.

Other summer programs (e.g., Title I) were scheduled to be housed at the Bronx site during the Summer 1975.

5. In addition to obtaining parent reactions informally, a parent questionnaire should be developed by the project coordinators and the evaluator to assess the perceptions of parents more formally regarding the functioning and quality of program activities.

A parent questionnaire (see Appendix D) was developed by the project coordinators and administered on the day of the final activity to which parents were formally invited (Open House).

6. An analysis of the ways in which the program activities and emphases assist the target population in accepting their disabilities and developing an increasingly mature personal adjustment should be made by the teachers, with this aspect becoming a more formalized part of the program's daily objectives.

The daily activity schedule (Appendix C) was structured to provide a period at the end of the day which would enable children to participate in planning the next day's activities. This provided the means whereby the above recommendation could be implemented. The implementation of the above objective was also stressed by the coordinators in the staff meetings which followed the 1:15-1:45 period.

These meetings were held on days when the children were not away from the facility on an excursion.

#### Chapter IV: SUMMARY OF MAJOR FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

The Summer Education Program for Neurologically and Physically Handicapped Children met its objectives of demonstrating a statistically significant improvement of its participants in fine and gross motor coordination (as demonstrated by improvement in swimming dexterity and game skills), social relationships, and independent daily living skills.

This evaluator also finds that the program as implemented coincides with the program as described in the proposal. Children were involved in acquiring new skills such as swimming, participating in athletic events, modified sports activities and competition such as the daily swimming, calisthenics or games. Children's cultural backgrounds were broadened through trips to places such as the Statue of Liberty, the Aquarium, the Botanical Gardens, or Rockefeller Center. Parents were involved through encouragement by the program coordinator, the staff and the children to participate actively in group excursions or daily activities at one of the sites.

This evaluator concludes that on the basis of the major findings summarized above this program was well implemented and recommends that it be continued.

The following recommendations for project improvement are based upon minor findings which have been indicated in the Chapter II discussion of the rating scale and the indication of weaknesses described in the observation reports.

1. Next year's rating scale should be examined for the purpose of modifying it to accomplish the following:

develop categories internally consistent with respect to level of complexity or abstraction.

develop categories that are consistent with program and evaluation objectives.

2. The Queens site space might be examined for the purpose of determining whether or not a modification of the space would provide for more effective utilization during the next summer's program. Effectiveness should be judged on the criterion of how that space can be made to better support simultaneous but different activities. Differences between these activities would be classified according to the criteria of noise level and degree of distraction permitted (or concentration required).
3. In planning next year's program, program planners should incorporate more of the cognitive tasks required in reading and mathematics into the program activities designed to develop motor skills (gross and fine).

## Appendix A: OBSERVATION REPORT FORM(S)

Consultant's name: Dr. Ronald S. Ellis

Date: July 22, 1975

Location: Bulova School

Project title: Summer Education Program for Neurologically and  
Physically Handicapped Children

Time: From 10 A.M. to 2 P.M.

Name of project coordinator: Mr. Alfred Broderick

Please make a detailed report for each category indicated. Use additional paper on the reverse side to insure complete reporting.

Theme of lesson or activity observed:

One group was involved with finger painting as part of arts and crafts activity. A second group was involved in a modified form of kick-ball. A third group was receiving swimming instruction. There was no formal lesson. Four groups were each involved in a different activity.

Cognitive response of pupils:

In each of the three groups observed the children were alert. Children in the group playing kick-ball were alert and were able to explain the rules to peers who had forgotten. Children who swam demonstrated long periods of concentration as they worked to achieve tasks set by teachers.

Affective response of pupils:

The children demonstrated involvement and enjoyment in their activities. Children who received swimming instruction cooperated fully

with paraprofessionals who dressed and undressed them. The relationship of the children with the staff and with their classmates was cooperative and friendly.

Method of instruction used:

Group instruction was used for arts and crafts. In the water therapy program individual help was given to students as they required it. The rules of the kick-ball game were reviewed prior to the beginning of the game to insure that all knew the rules.

Description of materials used by staff:

Arts and crafts materials were employed for finger painting and a small foam ball was used for the kick-ball. The pool contains a special platform which was used to lower the children safely into the water.

Description of materials used by pupils:

Throughout the day children used plastic balls and bats, Nok-Hockey, bean bags, table top games as well as a variety of other materials and equipment. Swimmers used life jackets and other flotation devices in the water. Reading and mathematics materials were also observed in use.

Number and description of staff at site:

In addition to the project coordinator there were two swimming teachers and eight teachers observed. In addition, there were paraprofessionals and other staff on the site who were not funded by Title VIB.

Describe activity of staff observed as indicated above:

Staff were actively committed to the specific duties their role required. Teachers and paraprofessionals assisted where required during lunch. Teachers provided individual small group instruction in arts and crafts and game skills. Fine motor skills were being developed in arts and crafts. Gross motor skills were being developed in kick-ball.

Number of children in attendance: 55-60 children

Is the program operational?

Yes; program was housed in a large open room with table around the perimeter and pool on another level. The pool was reached by elevator.

To what extent has the program been implemented according to design?

The program is being implemented according to design. The schedule of activities included small and large group activities in arts and crafts, swimming, games and free choice activities. There was some instruction in reading and mathematics. All staff appeared to be working actively toward accomplishing the objectives of the program.

Identify strengths:

Children obviously enjoyed the atmosphere and the relationships which they were developing with their peers and the teachers. The success which some children were able to experience as a result of the swimming program was demonstrated in their increased alertness after swim period.

**Identify weaknesses:**

The open structure of the room (actually a gymnasium) which housed the program detracted from some children's ability to focus intently on their own tasks. Atmosphere was not conducive to prolonged academic work.

**Recommendations:**

Some modification of the space to enable children to concentrate more intently upon academic tasks such as reading and mathematics would be helpful. Perhaps partitions or screens could be used if separate rooms were not available for use during the period of academic instruction for the children.

Consultant's name: Dr. Ronald S. Ellis

Date: July 24, 1975

Location: Evander Childs High School

Project Title: Summer Education Program for Neurologically and Physically Handicapped Children

Time: From 10 A.M. to 2 P.M.

Name of project coordinator: Mr. Leon Schuchman

Please make a detailed report for each category indicated. Use additional paper on the reverse side to insure complete reporting.

Theme of lesson or activity observed:

Many activities were observed. Arts and crafts, academic instruction, calisthenics, and swimming were among those activities observed.

Cognitive response of pupils:

Where youngsters' neurological impairment prevented their prolonged concentration upon the task, individual instruction helped to elicit the appropriate responses. Generally the response of pupils was at a level appropriate for their degree of development (i.e., response was good).

Affective response of pupils:

Youngsters were involved in their activities. The responses of children toward swimming and other large motor activities such as the trampoline was better than their responses toward fine motor activities such as arts and crafts.

Method of instruction used:

Small group and individual instruction. Students required less individual instruction. Flotation devices removed the fear of

water for the swimming group and enabled them to practice until specific skills were developed. These students did not require the physical supervision required by the Queens group.

Description of materials used by staff:

Various materials appropriate for swimming and game skills, the development of fine and gross motor skills, reading and mathematics instruction, and skills in cooperation.

Description of materials used by pupils:

Life jackets, flutter boards, water balls, gym mats, basketballs, trampoline, table top games such as ping-pong.

Number and description of staff at site:

In addition to the project coordinator there were two swimming teachers and six teachers. In addition paraprofessionals were also observed to be actively engaged in carrying out their roles.

Describe activity of staff observed as indicated above:

Staff were actively committed to the specific duties their roles required. Teachers were responsible for implementing small and large group instruction in fine and gross motor activities, game skills, swimming instruction, mathematics and reading instruction, and socialization skills.

Number of children in attendance: 25-30 children

Is the program operational?

Yes; a large portion of the high school was being utilized by the program. Arts and crafts and instruction in reading and mathematics occurred in classrooms while calisthenics and swimming

occurred in the gymnasium and the swimming pool. All facilities are on the ground level.

To what extent has the program been implemented according to design?

The program is being implemented according to design. Staff worked actively toward accomplishing the goals and objectives of the program. Activities included in the daily schedule were consistent with program goals and objectives.

Identify strengths:

The program was well administered. The fact that all activities were on the same floor of the facility reduced the management problems. Separating small motor activities and reading and mathematics instruction for large motor activities such as calisthenics helped to reduce the distractions of noise and activity and increase the levels of both affective and cognitive response.

Identify weaknesses:

There was not enough emphasis upon activities which require children to apply the concepts developed in reading and mathematics instruction.

Recommendations:

More gross and fine motor activities which incorporate the required tasks of the reading and mathematics instruction should be utilized.

## Appendis B: RATING SCALE

BULOVA SCHOOL, QUEENS  
 Summer Education Program for Physically Handicapped Children  
 July 1, 1975 to August 5, 1975

Directions: Indicate on a 1 to 5 scale your judgment on each item:

- |                           |         |
|---------------------------|---------|
| 1. no knowledge of skills | 2. poor |
| 3. fair                   | 4. good |
| 5. excellent              |         |

09-66601--Title VIB

Evaluator: Dr. Ronald Ellis

Coordinator

Name of Child _____	Diagnosis: BI _____	Other _____
Date of Birth _____	Laterality: Left _____	Right _____

Inception of Program					Completion of Program				
1	2	3	4	5	1	2	3	4	5

## I. Physical and Perceptual Skills

1. Awareness of Laterality and Dominance
2. Gross and Fine Motor Ability
3. Perceptual Skills
4. Body Orientation
5. Calisthenics

## II. Social Skills

1. Relationship with Peers
2. Relationship with Adults
3. Frustration (Tolerance)
4. Responsibility

## III. Emotional Development

1. Overall Emotional Development  
(Fear/Hostility/Enthusiasm, etc.)

## IV. Swimming Skills

1. Fear of Water
2. Face Float and Flutter Kick

Inception of Program					Completion of Program				
1	2	3	4	5	1	2	3	4	5

---

IV. Swimming Skills (continued)

3. Combination Kick and Flutter Kick
4. Deep Water Test
5. Good Water Safety Practices
6. Enjoyed Experiences

V. Educational and Learning Skills

1. Correlated Reading Skills
2. Correlated Math Skills
3. Attention Span
4. Independent Activities
5. Follows Instructions--  
Completes Tasks
6. Listening
7. Arts and Crafts
8. Response to Music (Rhythms)
9. Play Skills
10. Play with Puzzles and  
Chalkboard Activities

VI. Independent Daily Living Skills

1. Self Feeding
2. Self Dressing
3. Washing-up Skills
4. Toileting
5. Table Manners
6. Neatness

VII. Other Teacher Comments

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Name of Teacher

---

## Appendix C: DAILY ACTIVITIES

	Monday	Tuesday	Wednesday	Thursday	Friday
8:45- 9:00	Teachers arrive--prepare rooms for children				
9:00- 9:15	Children arrive at school; teachers meet pupils at buses Attendance taken in roll books; planning for day's activities				
9:15-10:15	Swimming	<ol style="list-style-type: none"> <li>1. Recreational swimming and instruction</li> <li>2. Instruction in personal hygiene</li> <li>3. Instruction in water safety and pool regulations</li> </ol>			
10:15-11:15	Academic Instruction	<ol style="list-style-type: none"> <li>1. Reading instruction for group; individualized instruction</li> <li>2. Arithmetic instruction; experiences, materials, computation, concepts</li> <li>3. Arts and crafts; eye-hand coordination; fine motor skills developed</li> <li>4. Instruction in games; rules of play; aspects of cooperation</li> <li>5. Children eat lunch with teacher; health learnings stressed</li> <li>6. Instruction in personal hygiene; toileting, wash-up activities</li> </ol>			
11:15-12:15	Calisthenics	<ol style="list-style-type: none"> <li>1. Stress on perceptual training in sports activities</li> <li>2. Outdoor activities at Evander Childs field--baseball; team activities</li> <li>3. Development of gross motor skills--basketball (modified), soft ball</li> <li>4. Gymnastics; awareness of body image; balancing; directionality</li> </ol>			
12:15- 1:15	Afternoon Swim	<ol style="list-style-type: none"> <li>1. Additional instruction; individual choice of activities</li> </ol>			
1:15- 1:45	Planning with children for next day; communication with parents; agencies Preparation of multi-sensory materials; preparation for scheduled trips* Teachers escort children to buses				

\*Trips: Trips will be planned for Tuesdays and Thursdays; if rain, rescheduled for Friday. Places: Statue of Liberty; NBC Rockefeller Center; Bronx Park Zoo; Aquarium, Botanical Gardens  
Others

## Appendix D: QUESTIONNAIRE FOR PARENTS

Dear Parents:

We would like you to answer the following questions about our summer program for neurologically handicapped children. This will help the Board of Education in planning for other programs next year. You do not have to sign your name.

Use a check mark where appropriate.

1. Should the summer program be continued next year?

Yes \_\_\_\_\_ No \_\_\_\_\_

Why? \_\_\_\_\_  
\_\_\_\_\_

2. How does your child react to the program when he comes home in the afternoon? (For example, his conduct at home, his appetite, friends, sleeping time, etc. Please use your own words to describe.)
- 
- \_\_\_\_\_
- 
- \_\_\_\_\_

3. Should the number of weeks of the program be increased?
- 
- Yes \_\_\_\_\_ No \_\_\_\_\_ Remain the same \_\_\_\_\_

4. Was your child in the program last year (summer 1974)?

Yes \_\_\_\_\_ No \_\_\_\_\_

If so, what were his reactions during the winter months about the summer program? \_\_\_\_\_  
\_\_\_\_\_

5. Would you be willing to volunteer for one morning a week at Evander Childs High School or to accompany the children on some trips?

Yes \_\_\_\_\_ No \_\_\_\_\_

Could you help in any other way? \_\_\_\_\_  
\_\_\_\_\_

Kindly return the answers to both papers in the enclosed envelope and mail to our office at the Board of Education; 110 Livingston Street, Brooklyn 11201, New York; Attention: Mr. Schuchman

Summer Education Program for Neurologically and  
Physically Handicapped Children

Summer 1975

Prepared by Dr. Ronald S. Ellis

Program Abstract

The Summer Education Program for Neurologically and Physically Handicapped Children served 95 children between the ages of six and 16 and attending any grade from one through nine.

The program was conducted in an academic high school in the Bronx and in an industrial school in Queens for six weeks from July 1, 1975 to August 8, 1975.

The purpose of the program was to enable the children to improve in the areas of fine and gross motor skills, social relationships and independent daily living.

To accomplish these results, pupils were placed into relatively homogeneous age groupings and various physical, intellectual, and cultural activities scheduled. Children were involved in acquiring new skills such as swimming, participating in athletic events, modified sports activities and competition. Cultural backgrounds were also broadened through trips to places such as the Aquarium, Rockefeller Center, and the Botanical Gardens. Parents were involved through encouragement from the program staff and from the children to actively participate in group excursions and daily activities at the sites.

To determine whether the objectives were met, on-site visits were made by the project evaluator. In addition, participant scores obtained from a pre-post administration of a locally developed rating scale were analyzed with the Wilcoxon matched-pairs signed-ranks test. The program met its objectives of demonstrating a statistically significant ( $\alpha = 0.01$  level of significance) improvement of its participants in fine and gross motor coordination (as demonstrated by improvement in swimming dexterity and game skills), social relationships, and independent daily living skills. In addition, no discrepancy existed between the project as proposed and the project as implemented.

This evaluator concludes that the program named above was well implemented and recommends that it should be continued.

Measures of growth other than Standardized Tests

31. This question is designed to describe the attainment of approved objectives not normally associated with measurement by norm referenced standardized achievement tests. Such objectives usually deal with behavior that is indirectly observed, especially in the affective domain. For example, a reduction in truancy, a positive change in attitude toward learning, a reduction in disruptive behavior, an improved attitude toward self (as indicated by repeated interviews), etc., are frequently held to be prerequisite to the shift toward increased academic achievement by disadvantaged learners. Where your approved measurement devices do not lend themselves to reporting on tables 26, 27, 28, or 29, use any combination of items and report on separate pages. Attach additional pages if necessary.

Component Code*	Activity Code	Objective Code**	
6 9 9 6 1	7 2 4		30

Brief Description \*Summer Program for Neurologically and Physically Handicapped Title VI-B children ages 6 through 16. \*\*No objective code is applicable for Title VI-B projects. The Rating Scale used was developed by the staff for rating children in the program. Teachers are asked to indicate in a scale of 1 to 5 their judgment on each item with respect to the pupil. The criteria for rating pupils are: 1 = no knowledge of skills, 2 = poor, 3 = fair, 4 = good, 5 = excellent

Number of cases observed: 0 0 7 8 Number of cases in treatment: 0 0 7 8

Pretreatment index of behavior (Specify scale used): Children's behavior in swimming dexterity, fine and gross motor coordination and game skills as measured by their score on the Fine and Gross Motor variable in Sections IV 2-4 and V 9, 10 of the Rating Scale.

Criterion of success: Statistically significant improvement in the group score on the variable Fine and Gross Motor.

Was objective fully met? Yes  No  If yes, by what criteria do you know? Rating scale data on the variable Fine and Gross Motor was analyzed by the Wilcoxon matched-pairs signed-ranks test and the difference between pre- and posttest found to be significant at the alpha = 0.01 level of significance.

Comments: \_\_\_\_\_



Measures of growth other than Standardized Tests

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Number of cases observed: 0 0 6 7 Number of cases in treatment: 0 0 6 7

Pretreatment index of behavior (Specify scale used): Children's behavior in social relationships as measured by their score on the Social Relationships variable in Sections II 1, 2 of the Rating Scale.

Criterion of success: Statistically significant improvement in the group score on the variable Social Relationships

Was objective fully met? Yes  No  If yes, by what criteria do you know? Rating scale data on the variable Social Relationships was analyzed by the Wilcoxon matched-pairs signed-ranks test and the difference between pre- and posttest found to be significant at the alpha = 0.01 level of significance.

Comments: \_\_\_\_\_

Measures of growth other than Standardized Tests

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Number of cases observed: 0 0 4 0 Number of cases in treatment: 0 0 4 0

Pretreatment index of behavior (Specify scale used): Children's behavior in Independent Daily Living as measured by their score on the Independent Daily Living variable in Sections VI 1-5 of the Rating Scale.

Criterion of success: Statistically significant improvement in the group score on the variable Independent Daily Living.

Was objective fully met? Yes  No  If yes, by what criteria do you know? Rating scale data on the variable Independent Daily Living was analyzed by the Wilcoxon matched-pairs signed-ranks test and the difference between pre- and posttest found to be significant at the alpha = 0.01 level of significance.

Comments: \_\_\_\_\_