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ABSTRACT

The Auxiliary Services for High Schools Program (ASHS) in New York City is a service oriented alternative school concept and optional learning environment established to serve educationally disadvantaged students who have found it difficult to function in the traditional high school setting, and as a result, have become school dropouts. This program provides counseling, remediation in reading and mathematics, high school equivalency preparation, bilingual, and English as a second language studies, and post secondary school counseling. It also makes referrals to both private and public agencies which provide services not offered by the Board of Education. About 1,691 students were expected to participate in the program. Standardized test results in reading and in mathematics indicate that significant growth in these two areas were achieved. The average student attendance amounted to almost seven months for a total of sixty-one days of instruction. One of the aspects of the program which accounted for the significant achievement results in math and reading was the alternative school organizational structure which encouraged self-motivation. This factor, combined with individualized instruction and a small group instructional setting, contributed to the success of the program.  
 (Author/AM)

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EVALUATION REPORT

Function No. B/E 09-69622

REMEDICATION FOR AUXILIARY SERVICE STUDENTS - O/A

EVALUATION PERIOD  
SCHOOL YEAR 1975 - 1976

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NATIONAL INSTITUTE OF  
EDUCATION

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An evaluation of a New York City School district educational project funded under Title I of the Elementary and Secondary Education Act of 1965 (P1 89-10) performed for the Board of Education of the City of New York for the 1975 - 1976 school year.

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REMEDICATION FOR AUXILIARY SERVICE STUDENTS - O/A

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The Auxiliary Services for High Schools Program (ASHS) was established in 1969 and has been running continuously from that time. ASHS is a service oriented alternative school concept and optional learning environment established to serve educationally disadvantaged students who have found it difficult to function in the traditional high school setting, and as a result, have become school dropouts. The purpose of Auxiliary Services for High Schools is to provide counseling, remediation in reading and mathematics, high school equivalency preparation, bilingual, and English as a second language studies, and post secondary school counseling. The program also makes referrals to both private and public agencies which provide services not offered by the Board of Education.

The objectives of the program as stated in its "give-away" literature are:

1. To return students who have left a traditional school to the educational mainstream by offering them an educational alternative.
2. To upgrade these students in reading and mathematics.
3. To provide these students with an opportunity to earn a High School Equivalency Diploma.
4. To counsel these students and make them aware of and eligible for post-secondary education.
5. To refer these students to employment and/or to training programs.

Overall services offered to clients in the ASHS instructional program include any or all of the following:

Remedial Reading Instruction  
Remedial Mathematics Instruction  
High School Equivalency Diploma Instruction  
English As A Second Language Instruction (Primarily for native speakers of Spanish, French, Greek, Chinese and Italian)  
Vocational Counseling  
Personal Counseling  
Education Counseling  
Job Development (Includes referral and placement)

Each ASHS client may avail himself or herself of as many of the above listed services as is desired and practicable.

Students are referred to the program from area high schools, community agencies, veterans organizations, relatives, and friends. (Most of the program centers have waiting lists of students who desire to enter). Students are primarily under 21 years old but there are some older students enrolled. There are no set calendar terms as is the case in the traditional high school program. Students enter the program at various times during the school year and leave when they have made sufficient progress in meeting their basic instructional objectives.

#### THE ASHS TITLE I PROGRAM

The Title I program is designed to provide remedial reading and mathematics to optional assignment Title I clients who are 2 or more years below grade level at Auxiliary Services for High Schools. In the 1975-76 school year the program is scheduled to serve 1,691 eligible students. This consists of 1,091 in 4 day centers and 600 in 4 evening centers. The Title I instructional staff consists of 8 full-time teachers in the day centers, 18 educational assistants in the day centers, and 20 educational assistants in the evening centers. The day centers hours range from 8:30 am to 4:30 pm, while the evening centers are open for 3 hours with times ranging from 5 pm to 9 pm. The day centers are divided into a morning session and an afternoon session.

Title I Optional Assignment students, are to be selected for participation from Auxiliary Services Centers, who are two or more years retarded in reading and/or mathematics. Selections are to be made by guidance counselors, teachers and administrators.

Table I that follows shows a breakdown of the adult and student participants in the Title I component: ("Total Students" includes

those who pre-tested and post-tested in both reading and math or only reading or only math).

TABLE I

ASHS TITLE I PROGRAM: CLIENT AND STAFF PARTICIPANTS 1975 - 1976

School	<u>Day Centers</u> Staff		Students			Total Students
	Teachers	Assistants	Grade 10	Grade 11	Grade 12	
Ebbets Field	2	5	120	20	170	310
Forsythe Street	3	6	130	30	240	400
93rd Street	2	5	105	25	170	300
R. Clemente	1	2	30	11	40	81
<b>Total Day</b>	<b>8</b>	<b>18</b>	<b>385</b>	<b>86</b>	<b>620</b>	<b>1,091</b>

School	<u>Evening Centers</u> Staff		Students			Total Students
	Teachers	Assistants	Grade 10	Grade 11	Grade 12	
Brandeis	0	5	55	30	65	150
Maxwell	0	5	55	30	65	150
Prospect Heights	0	5	55	30	65	150
J. Richman	0	5	55	30	65	150
<b>Total Evening</b>	<b>0</b>	<b>20</b>	<b>220</b>	<b>120</b>	<b>260</b>	<b>600</b>
<b>Total Day/Evening</b>	<b>8</b>	<b>38</b>	<b>605</b>	<b>206</b>	<b>880</b>	<b>1,691</b>

As part of their optional assignment instructional program, the Title I participating pupils are to attend a daily supplementary remedial reading and/or remedial math class. Each pupil is to be given a diagnostic test at the start of the program. The reading test will be the Metropolitan Achievement Test. The math test will be the New York State Arithmetic Computation Test. Individualized remedial prescriptive programs will be prepared for pupils based on the test diagnosis and teacher recommendations. The remedial prescription may

be for one day, for one week, or for a month or longer set of lessons designed to overcome a single skill deficiency at a time. The pupil will be given individualized attention by the teacher or the educational assistant on a regular and "as needed" basis. Client progress will be periodically evaluated. As each identified weakness is overcome the process will be repeated. As needed, the remedial reading student will be instructed in the mastery of word attack skills, phonics, acquisition of vocabulary, dictionary skills, work study skills, reading comprehension, increasing reading rate, etc. As needed, the remedial mathematics student will be instructed in understanding basic functions, types of calculation required in situations requiring computation, arithmetic operations, drills, word problems, and individualized math skills.

Some regularly used instructional materials with publisher and date include:

#### Reading

Specific Skills Series, Barnell Loft, 1972  
Understanding Word Groups, Barnell Loft, 1974  
System for Success I and II, Follet, 1970  
Reading for Understanding, S.R.A., 1972  
Reading for Meaning, S.R.A., 1962  
New Practice Reading, Scott, Foresman, 1965

#### Mathematics

Working With Numbers, Steck-Vaughn Company, 1974  
Spectrum Mathematics Series, Laidlaw Brothers, 1973  
General Mathematics Ability, Cambridge Book Company, 1969  
Algebra Workbook, Steck-Vaughn, 1969

## CHAPTER II EVALUATIVE PROCEDURES

### PROGRAM AND EVALUATION OBJECTIVES

1. Program Objective #1: As a result of participation in the remedial reading program, the reading grade of the students will show a statistically significant difference between the real post-test score and the anticipated post-test on the Metropolitan Achievement Test.

2. Program Objective #2: As a result of participation in this remedial math program, the math grade of the students will show a statistically significant difference between the real post-test score and the anticipated post-test score on the New York State Arithmetic Computation Test.
3. Evaluation Objective #3: To determine the extent to which the program, as actually carried out, coincided with the program as described in the Project Proposal.
  - a. Sixteen on-site visitations were conducted throughout the year at the centers in order to determine through observations the actual program being offered to Title I students and to determine the similarities of the ASHS program offered with the ASHS-Title I program planned.

#### EVALUATION PROCESS

1. Subjects: All participants in the project. 1,691 Title I students, 8 Title I Teachers and 38 Title I Educational Assistants.
2. All eligible Title I students at their time of entrance into the "Remediation for Auxiliary Service Students - Optional Assignment Program" were administered the Metropolitan Achievement Test in reading and the New York State Arithmetic Computation Test in Math which served as the pre-test data in reading and math as part of the historical regression evaluation procedures model.
3. High School grade level at time of entrance was recorded, along with other personal history data for guidance cumulative records.
4. Detailed attendance records were maintained because of the high degree of mobility and flexibility with regards to Title I students' attendance problems and commitment to the Auxiliary Services Program. In addition to the number of months Title I



students participated in the program, the number of days each student participated in the program were equally recorded. It became apparent early in the program that some students came 5 days a week, others 2 days per week; still others came 2 weeks and missed 2 weeks, etc.

5. Periodically and at their time of leaving all Title I students (when available) were administered an alternate form of the Metropolitan Achievement Test in Reading and the New York State Arithmetic Computation Test in Math, which were designed to serve as the post-test data in reading and math as part of the historical regression analysis of data evaluation model.

#### EVALUATION "IN-PUT" DATA

1. All participants: 1,691 students (population sample)
2. All centers (4 day, 4 evening); 8 centers
3. Attendance records: no. of months in program
4. Attendance records: no. of days in program
5. High School Grade Level at entrance: Entrance level
6. Pre-test Reading score at entrance
7. Pre-test Math score at entrance
8. Post-test Reading score at leaving
9. Post-test Math score at leaving

#### EVALUATION METHODS AND ANALYSIS

1. All "input" data will be obtained for each student.
2. Data will be analyzed by the Real (treatment) Post-test vs. Anticipated (without treatment) Post-test evaluation design.
3. The difference for significance between the groups (students) predicted (anticipated) post-test mean and the obtained post-test mean will be tested with correlated t-ratio.

#### EVALUATION DELIMITATIONS

It should be noted that the basic evaluation design procedures and data analysis did not anticipate the unique factors of the attendance patterns of the Title I students who participated in the ASHS study of the "Remediation For Auxiliary Service Students - Optional Assignment" program.

First: It was impossible to obtain a pre-test score during the

first week of the program because Title I Auxiliary Remedial Services is not a fixed program over a fixed period of time. Title I students do not enter or leave the ASHS program at any single point in time during the school year. There are no quarters, semesters or program blocks of time to evaluate. The evaluation model as prescribed, proceeded as per design up to late fall of 1975 with 1,691 students. However, because of the high degree of mobility and attendance flexibility among the Title I students in the program, it soon became apparent that many of the students present in October would leave by December and throughout each month of the school year. In addition, simultaneously as students left, new Title I students were enrolled into the program each month to continuously maintain a roster 1,691 active Title I students. Under such circumstances the maintenance of pre-test and post-test scores and evaluation data soon became a monumental clerical task. The delimitation of clerical error in such a process is hereby noted (and accounted for in final statistical analysis), as well as the recognition that a different student population and a different instructional program was in effect each month. These are statistical variables which must be delimited and a statistical margin of error accounted for. Therefore, the data gathering/analysis/evaluation procedures of accounting for each Title I student by number of months and days of attendance in the program, regardless of which month the client entered or left the Auxiliary Services program was undertaken. All Title I students were pre-tested at entrance and post-tested when they left the program or at the discretion of the instructional staff. (There was a general post-test for all students near the end of the calendar year).

The different pre-test and post-test periods and lack of standardization in the testing process, and the different attendance periods

for students throughout the year, should be recognized as serious statistical delimitations to this evaluation study. Wherever possible, variables were controlled and margins of error were accounted for in all statistical treatments.

### CHAPTER III FINDINGS

#### GROUP IDENTIFICATIONS KEY

For purposes of interpreting data presented in this study the following group identification key should be utilized:

School 1	Individual "ASHS" Center
School 2	Individual "ASHS" Center
School 3	Individual "ASHS" Center
School 4	Individual "ASHS" Center
School 5	Individual "ASHS" Center
School 6	Individual "ASHS" Center
School 7	Individual "ASHS" Center
School 8	Individual "ASHS" Center

(The above listing does not necessarily correlate to the order of Centers presented in Table I)

#### ATTENDANCE DATA KEY FOR CHARTS II AND III

Title I Student Profile Data - Attendance by months and days

Months = months of attendance in program

N = number of students in the program by months who had Reading and Mathematics pre and post-test scores

% = percent of total students in program

Days = number of days in program, total days of attendance, cumulative for school year 1975 - 1976 irrespective of months.

#### INTERPRETATIONS OF MONTHLY AND DAILY ATTENDANCE PATTERNS (Tables II and III)

Table II: Monthly Attendance Profile of Title I Students

1. The average monthly attendance profile for ASHS Title I students (for all schools) was (mean 6.9) approximately seven (7) months of attendance for instruction.
2. Twenty-five percent (25th %ile) of the Title I Students (N=375) attended ASHS classes from one (1) to three and one-half (3.5) months.

3. Twenty-five percent (50th %ile) of the students (N=750) attended ASHS classes from three and one-half (3.5) to five and one-half (5.5) months.
4. Twenty-five percent (75th %ile) of the students (N=1125) attended ASHS classes from five and one-half (5.5) to eight and one-half (8.5) months.
5. Twenty-five percent (99th %ile) of the students (N=1500) attended ASHS classes for longer than eight and one-half (8.5) months.
6. School numbers 2, 6, 7 appear (on the average) to retain Title I students for a greater number of months than is normatively characteristic of ASHS programs.
7. School numbers 1, 3, 4, 5, 8 appear (on the average) to retain Title I students for a fewer number of months than the mean indicates.
8. School numbers 1 and 3 appear (on the average) to retain students at less than half the number of months than the norm indicates.

Table III: Daily Attendance Profile of Title I Students

1. The average daily attendance profile for ASHS Title I students (for all schools) was (mean 61) approximately 61 days of attendance for instruction during the school year.
2. Twenty-five percent (25th %ile) of the Title I students (N=375) attended classes from one (1) to thirty (30) days.
3. Twenty-five percent (50th %ile) of the students (N=750) attended classes from thirty (30) to fifty (50) days.
4. Twenty-five percent (75th %ile) of the students (N=1125) attended classes from fifty (50) to seventy-six (76) days.
5. Twenty-five percent (99th %ile) of the students (N=1500) attended classes from seventy-six (76) to one hundred and fifty (150) days.
6. School numbers 2, 5, 7, 8 had a higher daily attendance profile than the norm indicates.
7. School numbers 1, 3, 4, 6 had a lower daily attendance profile than the norm indicates.

#### Monthly and Daily Attendance Profile

Statistically speaking, the average ASHS Title I student attended school for almost seven (6.9) months for sixty-one (61) days (for

approximately nine days per month) of instruction. The same statistical method employed on the data for the previous school year (1974 - 1975) indicated an average monthly attendance of five and one-half (5.5) months for fifty four (54) days (for approximately ten days per month) of instruction.

TABLE II

## STUDENT ATTENDANCE BY MONTHS (percentages in parentheses)

MONTHS	SCHOOL								TOTAL ALL SCHOOLS
	#1	#2	#3	#4	#5	#6	#7	#8	
1	12(8)	—	16(11)	—	1(1)	19(5)	—	7(2)	55(4)
2	32(21)	—	21(15)	17(12)	7(8)	34(9)	2(1)	30(10)	143(10)
3	52(35)	4(5)	48(34)	51(35)	14(15)	30(3)	7(4)	39(12)	245(16)
4	34(23)	1(1)	34(24)	21(14)	16(17)	31(8)	8(4)	48(16)	193(13)
5	1(1)	4(5)	11(8)	16(11)	29(31)	103(26)	6(3)	70(23)	240(16)
6	19(13)	10(12)	3(2)	11(7)	6(6)	17(4)	12(6)	42(14)	120(8)
7	—	12(15)	3(2)	11(7)	—	—	18(10)	9(3)	53(4)
8	—	49(60)	3(2)	1(1)	1(1)	1(0)	10(5)	9(3)	74(5)
9	—	1(1)	—	3(2)	—	5(1)	17(9)	7(2)	33(2)
10	—	—	—	5(3)	4(4)	13(3)	17(9)	1(0)	40(3)
OVER 10	—	—	3(2)	11(7)	15(16)	147(57)	92(49)	38(13)	306(20)
TOTAL	150	81	142	147	93	400	189	300	1502
MEAN MONTHS	3.3	7.2	3.4	5.1	5.5	9.4	10.9	5.7	6.9

TABLE III

## STUDENT ATTENDANCE BY DAYS (percentages in parentheses)

DAYS	SCHOOL								TOTAL ALL SCHOOLS
	#1	#2	#3	#4	#5	#6	#7	#8	
1-10	9(6)	—	29(23)	5(3)	—	38(10)	—	11(4)	92(6)
11-20	27(18)	2(2)	54(43)	30(20)	—	52(13)	5(3)	19(6)	189(13)
21-30	53(35)	5(6)	35(26)	39(25)	1(1)	46(12)	3(2)	30(10)	212(14)
31-40	47(30)	7(9)	4(3)	29(20)	1(1)	57(14)	7(4)	35(11)	187(12)
41-50	11(7)	15(18)	4(3)	10(7)	3(3)	54(13)	3(2)	25(8)	125(8)
51-60	1(1)	13(16)	2(2)	11(7)	8(8)	54(14)	8(4)	26(9)	123(8)
61-70	4(3)	9(11)	—	9(6)	28(29)	47(12)	8(4)	31(10)	136(9)
71-80	—	8(10)	—	6(4)	43(43)	37(9)	3(2)	14(5)	111(7)
81-90	—	11(14)	—	2(1)	13(14)	12(3)	11(6)	12(4)	61(4)
91-100	—	3(3)	—	5(3)	—	7(2)	13(7)	16(5)	44(3)
100+	—	7(9)	—	3(2)	—	—	130(67)	82(27)	222(15)
TOTAL	152	80	128	149	97	404	191	301	1502
MEAN # DAYS	28	62	18	31	70	42	124	93	61

COGNITIVE DATA: STANDARDIZED TEST RESULTS IN READING

Program Objective #1: As a result of participation in the remedial reading program, the reading grade of the students (in Title I) will show a statistically significant difference between the real post-test score and the anticipated post-test score on the Metropolitan Achievement Test.

TABLE IV: READING SCORES BY SCHOOLS  
Metropolitan Achievement Test 1975 - 1976  
(Mean Pre-Anticipated Post-Real Post Test Scores)

School #	N	Mean Months	Mean Days	Mean Pre-Test	Mean Anticipated Post-Test	Mean Actual Post-Test	Mean Difference	t-Score	Significance (P ≤)
1	134	3.3	28	5.5	5.7	6.4	+0.8	11.1	.001
2	64	7.4	66	6.0	6.3	7.2	+0.9	8.8	.001
3	75	3.5	19	5.1	5.2	6.1	+0.9	12.5	.001
4	147	5.1	31	6.0	6.3	7.7	+1.4	12.1	.001
5	91	5.5	70	6.1	6.4	7.0	+0.7	8.8	.001
6	400	9.4	42	6.6	7.1	7.4	+0.3	5.1	.001
7	175	11.0	124	7.1	7.7	8.5	+0.8	9.9	.001
8	262	5.9	93	6.9	7.2	8.4	+1.2	13.2	.001
Total	1,348	7.2	62	6.4	6.6	7.3	+0.8	24.5	.001

INTERPRETATION OF COGNITIVE DATA FOR PROGRAM OBJECTIVE #1

- Both individually and combined, all of the centers provided remedial reading programs which produced significant reading growth for their Title I students at the .001 level of probability (confidence).
- The "average" ASHS Title I student gained eight (8) months in functional reading level after approximately seven months of instruction.
- While all of the individual ASHS centers produced significant real reading achievement growth, School numbers 4 and 8 had

the highest growth rate while School number 6 had the lowest growth rate. (Growth rates ranged from a high of one year and four months to a low of three months grade equivalent scores).

4. There is no statistically significant difference between months attended and days attended at ASHS Title 1 programs and reading achievement growth. All relationships at ASHS for either one month, ten days, or up to ten months or one hundred days produced immediate and continuous significant reading achievement growth. This may be attributed to statistical or clerical error or it may be that there is some unique affective quality inherent in the ASHS programs which cares for Title 1 clients and which produces reading achievement.
5. Many rationalizations can be formulated to account for the reading achievement growth for Title 1 clients after only one or two months of instruction. Some of these might include:
- a. Since most clients enter the program with reading levels below sixth grade, it may be relatively easier to attain dramatic achievement than it would be if students came in with a higher based reading level.
  - b. The unique one-on-one approach combined with a new environment and group relationship may be a very strong motivating factor.
  - c. Many students do poorly on tests, especially after being thrust into a new environment as is the case in ASHS Title 1 Program. As a result of a few days of friendly instruction, the student may become more relaxed when taking subsequent tests and achievement level might be more accurate on re-tests.
  - d. Some students may never have had the attention and prodding needed to challenge them and the methods used in this program provide that opportunity.
6. While monthly reading achievement gain was not as great for the 1975 - 1976 school year as the report for the 1974 - 1975 school year indicated, all centers produced significant reading growth which was not the case in the previous school year.



COGNITIVE DATA: STANDARDIZED TEST RESULTS IN MATHEMATICS

Program Objective #2: As a result of the participation in the remedial math program, the math grade of the students (in Title I) will show a statistically significant difference between the real post-test score and the anticipated post-test score on the New York State Arithmetic Computation Test.

TABLE V: MATHEMATICS SCORES BY SCHOOLS  
New York State Arithmetic Computation Test 1975 - 1976  
(Mean Pre-Anticipated Post-Real Post Test Scores)

School #	N	Mean Months	Mean Days	Mean Pre-Test	Mean Anticipated Post-Test	Mean Actual Post-Test	Mean Difference	t-score	Significance (p <sub>α</sub> )
1	137	3.3	28	5.4	5.6	6.1	+0.6	14.5	.001
2	59	7.1	61	5.8	6.1	8.3	+2.1	15.3	.001
3	109	3.6	19	5.1	5.2	6.2	+0.9	8.5	.001
4	146	5.1	31	5.4	5.6	6.9	+1.3	14.1	.001
5	91	5.5	70	5.0	5.3	6.0	+0.7	13.4	.001
6	400	9.4	42	6.0	6.4	7.7	+1.3	14.4	.001
7	182	10.9	124	5.4	5.8	7.1	+1.2	13.8	.001
8	300	5.7	93	5.7	5.9	8.3	+2.4	25.1	.001
Total	1424	7.0	62	5.6	5.9	7.3	+1.4	35.0	.001

INTERPRETATION OF COGNITIVE DATA FOR PROGRAM OBJECTIVE #2

1. Both individually and combined all of the centers provided remedial mathematics programs which produced significant mathematics growth for their Title I students at the .001 level of probability (confidence).
2. The "average" ASHS Title I student gained one year and four months (1.4) in functional math level after approximately seven months of instruction.
3. While all of the individual ASHS centers produced significant real math achievement growth, School numbers 2 and 8 had

the highest growth rate while School number 1 had the lowest growth rate. (Growth achievement ranged from a high of two years and four months to a low of six months grade equiv. scores.

4. Measured in terms of growth months, the achievement level in math exceeded the achievement level in reading for the combined program. In School numbers 2,6,7,8 the math monthly growth rate exceeded the reading monthly growth rate while in School numbers 1 and 4 the reading monthly growth rate exceeded the math monthly growth rate. In School numbers 3 and 5 the monthly growth rate for both reading and math were the same.
5. There appears to be no statistically significant difference between months attended and days attended at ASHS Title I math programs and math achievement scores.
6. The same phenomenon occurred in math as in reading with either one month, ten days or up to ten months or one hundred days producing immediate and continuous significant math achievement growth.
7. The same rationale of possible statistical or clerical error as prevailed in reading may also be applicable to math.
8. As with reading, the same rationalizations can be formulated to account for the achievement growth for Title I clients in mathematics after only one or two months of instruction.
9. The monthly mathematics achievement gain exceeded that for the previous school year (1974 - 1975) and all centers produced significant mathematics growth which was not the case in the previous school year.

#### SUBJECTIVE OBSERVATIONS AND EVALUATIONS

Evaluation Objective #3: a) to determine the extent to which the

- program, as actually carried out, coincided with the program as described in the Project Proposal; b) to determine adequacy of facilities and materials; c) to determine degree to which recommendations from 1974 - 1975 were implemented in the 1975 - 1976 program; d) evaluations and observations of present ASHS Title I programs.
1. Under the supervision of the ASHS Director and staff of teachers and educational assistants, the Title I program for approximately 1500\* students was in all major aspects implemented, developed, and performed as described in the original Title I proposal as submitted and described in Chapter I of this report. (\* Not all students had pre-post test scores at time of entry testing).
  2. In every respect the ASHS Title I program is serving the needs of the identified target population school dropouts; economically disadvantaged; non-native speakers; apathetic personalities; drug culture participants; educationally deprived; unwanted and uncared for young people; and adults who never had the opportunity for adequate formal learning.
  3. The materials for the ASHS program are functional and adequate considering the financial problems for funding public education currently being met by New York City.
  4. Most of the facilities are adequate although many of them are not large enough to accommodate those clients requiring individual counseling. (One center is totally inadequate for servicing its clients. Most classes meet in a converted auditorium that has no windows and constant heating problems. An "open classroom" approach is utilized very effectively in this center, but the students are deserving of a better location).
  5. The instructional staff is extremely well prepared with some teachers having extensive teaching experience in New York City high schools and some educational assistants with student teaching and substitute teaching backgrounds.
  6. All of the recommendations from the 1974 - 1975 evaluation study have been implemented or are in the process of being developed and concluded, with two exceptions being that more district wide conferences for ASHS Title I staff be held, and that standardized diagnostic achievement tests in reading and math which can both satisfy evaluation and instruction requirements be implemented.

Recommendations implemented or developing:

1. More group interaction in the learning process.
2. More teacher-made and student-made instructional materials.
3. Attendance records should be formalized and centralized in each school office.
4. Continuous emphasis should be focused upon giving students a sense of school community.
5. The project be continued and expanded. (Has been in terms of student count but not in terms of number of centers).

7. The following factors contributed most to the overall statistically significant success of the ASHS Title I program for 1975 - 1976:
- a. The program is well administered by an extremely well informed, competent, and dedicated central administration as well as by center directors who know how to get the job done and keep students and staff morale at an exceptionally high level.
  - b. An informal atmosphere prevails at all of the centers; yet the aura at each center is one of attack-work-progress. There is little in the way of discipline problems or even harmless horsing around. Students know they have serious basic skill problems and are infected with the dedication of the instructional staff to work until the problems are resolved.
  - c. The use of some bilingual instructors greatly helps the large number of ASHS Title I students with English communication difficulties to learn more quickly in a comfortable setting.
  - d. "Student recognition" is a strong theme throughout the centers. Pictures of those who received the high school equivalency diploma are prominently displayed. Students receiving any favorable publicity such as finding a good job or being accepted into a college is also prominently noted.
  - e. Some centers post help-wanted notices and some centers have college catalogs available for borrowing by students.
  - f. Counseling is a strong theme at all of the centers. While adequate counseling facilities are often lacking, this does not stop center directors, counselors, faculty, and assistants from helping students with personal problems, learning problems, or job problems.
  - g. There is a "school identity" association prevalent in all of the day centers and some of the evening centers. Talent shows, artistic displays, lending libraries, newsletters, and similar endeavors are in abundance.
  - h. Staff absenteeism appears to be very low as compared with the normal school situation.
  - i. Students who enter this program normally would have thirty day or longer truancy records in a normal high school setting, yet come to ASHS fairly regularly and come to learn and succeed.
  - j. The English as a second language program provides opportunities for those students whose native language is not English to receive effective training and instruction in the basic skills of the English Language.
  - k. Even an infrequent observer to the centers can sense a change in student attitudes from those that these students might normally have had in a normal high school setting. The individualized, personalized, instructional, counseling, and tutorial aspects of the ASHS program appeared to be major factors in the Title I students apparent enthusiasm for the program.

1. In terms of cost and benefit analysis, this program costs very little to operate when compared to the benefits derived by the clients in appreciably increasing their basic reading and math skills over a relatively short period of instruction.

## CHAPTER IV SUMMARY OF MAJOR FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

### MAJOR FINDINGS

1. The monthly and daily attendance patterns of ASHS Title I students continues to be mobile, flexible and irregular. The average ASHS Title I student attendance amounted to almost seven months and for sixty-one days of instruction.
2. Program Objective 1: The ASHS remedial reading program produced statistically significant reading achievement growth at the  $P=.001$  level of significance for the total district combined and at the  $P=.001$  level for each of the eight centers involved in the program.
3. Program Objective 2: The ASHS remedial math program produced statistically significant math achievement growth at the  $P=.001$  level of significance for the total district combined and at the  $P=.001$  level for each of the eight centers involved in the program.
4. The average reading achievement test score measured by months of growth was several months less than the report for 1974 - 1975 indicated. The average mathematics achievement test score measured by months of growth was several months greater than the report for 1974 - 1975 indicated.

### CONCLUSIONS

The ASHS Title I program in every aspect is serving the needs of the identified target population of seriously educationally handicapped Title I students. Therefore, the ASHS Title I program is providing a much needed service to the City of New York.

### RECOMMENDATIONS

1. It is the recommendation of this evaluation that the ASHS Title I project be continued and expanded to include additional staff, materials, and more appropriate physical facilities where needed.
2. Instructional Materials: In addition to textbooks, pamphlets, teacher-made and student-made materials, more programmed materials using visual and audio equipment should be tried by more of the centers.
3. Instructional Materials: Some of the centers use magazines, newspapers, pocketbooks for supplementary reading materials. This is a worthwhile idea and should be tried at all of the centers. Instructional materials in mathematics can also be supplemented with similar devices.

4. Record Keeping: Vital statistics related to center enrollments, class sizes, reading student enrollment versus mathematics student enrollment, test scores, withdrawal numbers, and the like should be recorded on standardized forms and copies kept by each center director as well as by the central office for AHS.
5. Follow Up: Although monthly and daily attendance in the program has improved over the previous year, more should be done to facilitate further improvement. Perhaps directors and staff should conduct telephone interviews with serious students who stop attending to explore and categorize why student attendance is poor. This may be a first step toward further improvement in the attendance pattern.
6. It is important that recommendations made in last years evaluative report and not yet substantially developed or implemented be followed. (See #6 under the topic of "Subjective Observations and Evaluations.")

Those aspects of the ASHS remedial reading and remedial mathematics programs which accounted for the significant achievement results in both scholastic areas were identified as:

1. The alternate school organizational structure which encouraged self-motivation to enter the program, combined with an individualized and self-paced one-to-one and small group instructional structure produced immediate reading and math achievement results. (Both the reading and math standardized achievement scores were significant beyond the  $P=.001$  level of significance).
2. The human relations ability of the ASHS program team of administrators, directors, teachers, and educational assistants combined with their commitment and dedication to work with students with various learning problems created an intensified, yet comfortable, working environment, and a high morale learning atmosphere which produced immediate affective and cognitive results.
3. The one-to-one instruction and personalized tutoring and counseling aspects of the ASHS Title I program appeared to be major factors in the students apparent initiative to: a) attend on a fairly regular basis; b) improve work-study habits; c) remediate reading and math deficiencies through independent study aided by competent professional and peer help.

Table 9 Historical Regression Design (6-step Formula) for reporting norm-referenced achievement tests in Reading and Mathematics.

REMEDIAL FOR AUXILIARY SERVICES STUDENTS - O/A

In the table below, enter the requested assessment information about the tests used to evaluate the effectiveness of major project component/activities in achieving cognitive objectives. This form requires means obtained from scores in the form of grade equivalent units as processed by the 6-step formula. (see District Evaluator's Handbook of Selected Evaluation Procedures, 1974, p. 29-31) Before completing this table, read all footnotes. Attach additional sheets if necessary.

READING

Component Code	Activity Code	Test Used 1/	Form		Level		Total N 2/	Group ID 3/	Number Tested 4/	Pretest		Predicted Posttest Mean	Actual Posttest		Obtained Value of t
			Pre	Post	Pre	Post				Date	Mean		Date	Mean	
6 0 8 1 90 0	7 2 0	MAT	F	G	INT	INT	134	19	134	9/75	5.5	5.7	4/76	6.4	11.1
6 0 8 1 90 0	7 2 0	MAT	F	G	INT	INT	64	19	64	10/75	6.0	6.3	4/76	7.2	8.8
6 0 8 1 90 0	7 2 0	MAT	F	G	INT	INT	75	19	75	10/75	5.1	5.2	4/76	6.1	12.5
6 0 8 1 90 0	7 2 0	MAT	F	G	INT	INT	147	19	147	9/75	6.0	6.3	4/76	7.7	12.1
6 0 8 1 90 0	7 2 0	MAT	F	G	INT	INT	91	19	91	10/75	6.1	6.4	4/76	7.0	8.8
6 0 8 1 90 0	7 2 0	MAT	F	G	INT	INT	400	19	400	10/75	6.6	7.1	4/76	7.4	5.1
6 0 8 1 90 0	7 2 0	MAT	F	G	INT	INT	175	19	175	9/75	7.1	7.7	4/76	8.5	9.9
6 0 8 1 90 0	7 2 0	MAT	F	G	INT	INT	262	19	262	9/75	6.9	7.2	4/76	8.4	13.2
6 0 8 1 90 0	7 2 0	MAT	F	G	INT	INT	1348	19	1348	10/75	6.4	6.6	4/76	7.3	24.5

\* Includes the preceding 8 Centers

\*Signif. @  $p \leq .001$

- 1/ Identify the test used and year of publication (MAT-58, CAT-70, etc.).
- 2/ Total number of participants in the activity.
- 3/ Identify the participants by specific grade level (e.g., grade 3, grade 5). Where several grades are combined, enter the 4th and 5th digits of the component code.
- 4/ Number of pupils for whom both pre and post test data are provided.



**Table 9** Historical Regression Design (6-step Formula) for reporting norm-referenced achievement tests in Reading and Mathematics.

REMEDICATION FOR AUXILIARY SERVICES STUDENTS - O/A

In the table below, enter the requested assessment information about the tests used to evaluate the effectiveness of major project component/activities in achieving cognitive objectives. This form requires means obtained from scores in the form of grade equivalent units as processed by the 6-step formula. (see District Evaluator's Handbook of Selected Evaluation Procedures, 1974, p. 29-31) Before completing this table, read all footnotes. Attach additional sheets if necessary.

**MATHEMATICS**

Component Code	Activity Code	Test Used 1/	Form		Level		Total N 2/	Group ID 3/	Number Tested 4/	Pretest		Predicted Posttest Mean	Actual Posttest		Obtained Value of t
			Pre	Post	Pre	Post				Date	Mean		Date	Mean	
6 0 91 9 0 0	7 2 0	ACT	C	D	7/12	7/12	137	19	137	9/75	5.4	5.6	4/76	6.1	14.5 *
6 0 91 9 0 0	7 2 0	ACT	C	D	7/12	7/12	59	19	59	10/75	5.8	6.1	4/76	8.3	15.3 *
6 0 91 9 0 0	7 2 0	ACT	C	D	7/12	7/12	109	19	109	10/75	5.1	5.2	4/76	6.2	8.5 *
6 0 91 9 0 0	7 2 0	ACT	C	D	7/12	7/12	146	19	146	9/75	5.4	5.6	4/76	6.9	14.1 *
6 0 91 9 0 0	7 2 0	ACT	C	D	7/12	7/12	91	19	91	10/75	5.0	5.3	4/76	6.0	13.4 *
6 0 91 9 0 0	7 2 0	ACT	C	D	7/12	7/12	400	19	400	10/75	6.0	6.4	4/76	7.7	14.4 *
6 0 91 9 0 0	7 2 0	ACT	C	D	7/12	7/12	182	19	182	9/75	5.4	5.8	4/76	7.1	13.8 *
6 0 91 9 0 0	7 2 0	ACT	C	D	7/12	7/12	300	19	300	9/75	5.7	5.9	4/76	8.3	25.1 *
6 0 91 9 0 0	7 2 0	ACT	C	D	7/12	7/12	1424	19	1424	10/75	5.6	5.9	4/76	7.3	35.0 *

\*Includes the preceding 8 Centers

\*Signif. @ p < .001

1/ Identify the test used and year of publication (MAT-58, CAT-70, etc.).

2/ Total number of participants in the activity.

3/ Identify the participants by specific grade level (e.g., grade 3, grade 5). Where several grades are combined, enter the 4th and 5th digits of the component code.

4/ Number of pupils for whom both pre and post test data are provided.

14. This item is designed to describe the attainment of objectives not normally associated with measurement by criterion referenced or norm referenced standardized achievement tests. Such objectives are usually associated 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, etc., are frequently held to be prerequisite to increased academic achievement by disadvantaged learners. If the data obtained from measurement devices you used to assess program effectiveness are not conducive to reporting in tables 9-13, supply information for all of the items below.

Component Code	Activity Code	Objective Code
6 0 8 1 9 0 0	7 2 0	8 1 1

Brief Description Recognizing the high mobility of Title I ASHS students, an objective was designed to determine the attendance patterns of Title I ASHS students by days and months of attendance in the remedial program.

Number of cases observed: 1 3 4 8 Number of cases in component: 1 6 9 1

Pretreatment index of behavior (Specify instrument used): \_\_\_\_\_

Daily and monthly attendance record cards for each student and for each school were used.

Criterion of success: Greater than 50% attendance was deemed to be a successful attendance pattern, demonstration of positive attitude towards

school and fulfillment of this attendance objective.  
 Was objective fully met? Yes  No  If yes, by what criteria do you know? Statistics indicate that the "average" ASHS Title I student

attended school for six and nine-tenths (6.9) months for sixty-one (61) days of instruction.

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

15. Program Abstract: Please provide an abstract of your project, including aspects of the project which account for highly positive results. Provide a summary of the findings in relation to the objectives, as well as a description of the pedagogical methodology employed. See Appendix A.

**OFFICE OF EDUCATIONAL EVALUATION - DATA LOSS FORM**  
 (attach to MIR, item #30)      Function # BE/09-69622

In this table enter all data loss information. Between MIR, item #30 and this form, all participants activity must be accounted for. The component and activity codes used in completion of item #30 be used here so that the two tables match. See definitions below table for further instructions.

Component Code	Activity Code	(1) Group I.D.	(2) Test Used	(3) Total N	(4) Number Tested/ Analyzed	(5) Participants Not Tested/ Analyzed		(6) Reasons why students were not tested, or if tested, were not analyzed	Number/ Reason
						N	%		
						81972019	MAT		
91972019	NYS/ ACT	1691	1424	267	15.7	No Pre-Test or Post-Test Score due to absence or left program	267		

Identify the participants by specific grade level (e.g., grade 3, grade 9). Where several grades are combined, enter the last two digits of the component code.  
 Identify the test used and year of publication (MAT-70, SDAT-74, etc.).  
 Number of participants in the activity.  
 Number of participants included in the pre and posttest calculations found on item #30.  
 Number and percent of participants not tested and/or not analyzed on item #30.  
 Specify all reasons why students were not tested and/or analyzed. For each reason specified, provide a separate number count. If any further documentation is available, please attach to this form. If further space is needed to specify and explain data loss, attach additional pages to this form.

