

DOCUMENT RESUME

ED 293 025

CG 020 673

AUTHOR Guerrero, Frank; And Others
TITLE Chapter I Clinical and Guidance Program 1985-86. OEA Evaluation Report.
INSTITUTION New York City Board of Education, Brooklyn. Office of Educational Assessment.
PUB DATE Oct 87
NOTE 58p.
PUB TYPE Reports - Evaluative/Feasibility (142)
EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS Academic Achievement; Behavior Change; *Counseling Effectiveness; Elementary Secondary Education; English (Second Language); Mathematics Achievement; *Program Evaluation; Reading Improvement; *School Counseling; *School Guidance; *Student Behavior; *Student Improvement
IDENTIFIERS Education Consolidation Improvement Act Chapter 1

ABSTRACT

Presented is an evaluation of the 1985-1986 Clinical and Guidance Program which provided a variety of diagnostic and counseling services to 10,536 students enrolled in Chapter I remedial instructional programs in 201 nonpublic schools in New York City. The report notes that the Chapter I Evaluation Model A was used to determine the impact of counseling services on student achievement in kindergarten through grade 12 in reading achievement, mathematics achievement, or linguistic skills. The objective criteria were gains of five Normal Curve Equivalents on norm-referenced achievement tests or statistically significant gains between pretests and posttests on criterion-referenced tests. Findings showed that most students in the corrective reading program, the reading skills center program, the corrective mathematics programs, and the English as a second language program made statistically significant and educationally meaningful mean gains. Students' mean scores on the Behavior Checklist decreased by 10.8 raw-score points, indicating a statistically significant improvement in behavior. The findings demonstrate that, in general, the program reached its goal of helping students resolve social and emotional problems that could disrupt learning and academic performance. A list of recommendations and 22 tables are included.
(NB)

* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *

Evaluation Section Report
Robert Tobias, Administrator
John Schoener, Senior Manager

October, 1987

CHAPTER I
CLINICAL AND GUIDANCE PROGRAM
1985-86

Prepared by the O.E.A.
Instructional Support
Evaluation Unit

Frank Guerrero,
Unit Manager

Sharon Walker,
Education Specialist

Chris Langlois,
Evaluation Consultant

New York City Board of Education
Office of Educational Assessment
Richard Guttenberg, Director

It is the policy of the Board of Education not to discriminate on the basis of race, creed, national origin, age, handicapping condition, sexual orientation, or sex, in its educational programs, activities, and employment policies, as required by law. Any person who believes he or she has been discriminated against should contact: Carole Guerra, Local Equal Opportunity Coordinator, Office of Educational Assessment, 110 Livingston Street, Room 743, Brooklyn, New York 11201. Inquiries regarding compliance with appropriate laws may also be directed to: Mercedes A. Nesfield, Director, Office of Equal Opportunity, 110 Livingston Street, Room 601, Brooklyn, New York; or the Director, Office of Civil Rights, U.S. Department of Education, 26 Federal Plaza, Room 33-130, New York, New York 10278.

BUREAU OF NONPUBLIC SCHOOL REIMBURSABLE SERVICES
CHAPTER I CLINICAL AND GUIDANCE PROGRAM

Year of Operation: 1985-86

Number of Partipants: 10,536

Director: Margaret O. Weiss

Program Coordinator: Peter Kolisch
Barbara Taylor

EVALUATION SUMMARY 1985-86

BACKGROUND

The 1985-86 Clinical and Guidance Program provided a variety of diagnostic and counseling services to participating students enrolled in nonpublic school Chapter I remedial instructional programs: Corrective Reading, Reading Skills Center, Corrective Mathematics, and English as a Second Language. The program's primary goal is to ameliorate the emotional or social problems that interfere with the students' ability to profit from remediation.

The program provided services to 10,536 students in 201 nonpublic schools. Chapter I funding for this program totalled \$7.9 million. This funding provided support for a staff of two coordinators, three field supervisors, 23 social workers, 123 guidance counselors, 56 psychologists, and one psychiatrist.

EVALUATION METHODOLOGY

The Chapter I Evaluation Model A was used to determine the impact of counseling services on student achievement in grades kindergarten through twelve in reading achievement, mathematics achievement, or linguistic skills. The objective criteria were gains of five N.C.E.s on norm-referenced achievement tests or statistically significant gains between pretest and posttest on criterion-referenced tests. In addition to the analyses mandated by the State Education Department, the effect size was calculated to assist the staff in determining the emphasis for staff development and interfacing with the Chapter I instructional teachers.

In the affective area, the Behavior Checklist was used to assess changes in student behavior and attitudes. The assumption was that intervention would produce improvement.

FINDINGS

Results for students in the Corrective Reading Program indicated that most grade levels averaged statistically significant and educationally meaningful mean gains. First-grade students achieved a mean gain of 7.1 N.C.E.s on the Environment subtest of the Stanford Early School Achievement Test (SESAT), 8.6 N.C.E.s on the Aural Comprehension subtest, but only an average gain of 2.1 N.C.E.s on the Letters and Sounds subtest. Grades two through twelve gained an average of 9.2 N.C.E.s on the Reading Comprehension subtest of the California Achievement Test (CAT) and 7.5 and 7.2 N.C.E.s, respectively, on the Language Mechanics and Language Expression subtests.

Students in the Reading Skills Center Program took the same three CAT subtests taken by students in the Corrective Reading Program. Reading Skills students gained an average of 11.7 N.C.E.s on the Reading Comprehension subtest, and 6.8 and 7.4 N.C.E.s on the Language Mechanics and the Language Expression subtests, respectively.

Students in the Corrective Mathematics Program, grades one through twelve, averaged a mean gain of 14.0 N.C.E.s on the Total Score. This far exceeded the program's goal of a mean gain of five N.C.E.s. Students in grades two through eight taking the Concepts subtest gained an average of 13.0 N.C.E.s; an average of 13.8 N.C.E.s on the Computations subtest; and a gains of 10.6 N.C.E.s. on the Applications subtest.

E.S.L. students in grades kindergarten through grade two made mean gains of 13.7, 11.0, and 8.9 N.C.E.s, respectively, on standardized achievement tests. E.S.L. students in grades three through eight achieved a mean gain of 7.8 raw-score points on the Total Auditory subtest of the S.A.T., which was statistically significant. Students in grades kindergarten through eight made a raw-score mean-gain of 6.2 points on the Oral Interview Test (OIT) which was statistically significant.

Students' mean scores on the Behavior Checklist decreased by 10.8 raw-score points, indicating a statistically significant improvement. A decrease in scores indicates a positive change.

RECOMMENDATIONS

Based on the 1985-86 program outcomes, the following recommendations are made:

- The Behavior Checklist should be validated because there is no information on how students who are not in the program would score, or how their score would change over the course of the academic year. The definition of a behaviorally significant change should be clarified.
- "Underachievement" should be eliminated as a category from the initial screening form of the Behavior Checklist. By definition, all students in Chapter I programs are underachieving; thus, this classification is redundant and promotes a tendency for teachers to check this box.
- Clinical and guidance staff should explore additional motivational ways to work with the Corrective Reading First-Grade students since their overall mean gain score on the CAT Letters and Sounds subtest was the only mean gain not meeting the program's criterion for success.

TABLE OF CONTENTS

	<u>PAGE</u>
I. INTRODUCTION	1
Program Purpose and Features	1
Eligibility	2
Students Served	3
Program Objectives	6
Program Evaluation	6
Scope of the Report	7
II. ORGANIZATION AND FUNDING	8
Program Organization	8
Staff Development	11
Funding	11
III. STUDENT OUTCOME DATA	16
Methodology	16
Corrective Reading Program Findings	19
Reading Skills Center Program Findings	19
Corrective Mathematics Program Findings	24
English as a Second Language Program Findings	30
Behavioral and Attitudinal Changes	34
IV. CONCLUSIONS AND RECOMMENDATIONS	39
Conclusions	39
Recommendations	40
APPENDIX A: Behavior Checklist (Initial Screening Form for Students Referred for Clinical and Guidance Services)	42
APPENDIX B: Brief Description of Chapter I Nonpublic School Reimbursable 1985-86 Programs	46

LIST OF TABLES

	<u>PAGE</u>
Figure 1: Nonpublic School Testing Program, 1985-86	17
Table 1: Number of Students in Chapter I Instructional Programs Who Participated in the Clinical and Guidance Program, 1985-86	4
Table 2: Student Participation in the Clinical and Guidance Program, by Grade, 1985-86	5
Table 3: Number and Percent of Students Referred to Clinical Guidance Program, by Reason for Referral, 1985-86	9
Table 4: Student Participation in the Clinical and Guidance Program, by Years, in Chapter I Instructional Programs, 1985-86	10
Table 5: Type of Service Received, by Years, in the Clinical and Guidance Program, 1985-86	12
Table 6: Number of Students Seen, by Years, in the Clinical and Guidance Program, 1985-86	13
Table 7: Mean Number of Sessions, by Years, in the Clinical and Guidance Program, 1985-86	14
Table 8: Mean N.C.E. Scores of Full-Year First-Grade Students on the SESAT for Clinical and Guidance Program Students in the Corrective Reading Program, 1985-86	20
Table 9: Mean N.C.E. Scores of Full-Year Students, by Grade, on the Reading Comprehension Subtest of the CAT for Clinical and Guidance Program Students in the Corrective Reading Program, 1985-86	21
Table 10: Mean N.C.E. Scores of Full-Year Students, by Grade, on the Language Mechanics Subtest of the CAT for Clinical and Guidance Program Students in the Corrective Reading Program, 1985-86	22
Table 11: Mean N.C.E. Scores of Full-Year Students, by Grade, on the Language Expression Subtest of the CAT for Clinical and Guidance Program Students in the Corrective Reading Program, 1985-86	23

LIST OF TABLES (cont.)

	<u>PAGE</u>
Table 12: Mean N.C.E. Scores of Full-Year Students, by Grade, on the Reading Comprehension Subtest of the CAT for Clinical and Guidance Program Students in the Reading Skills Center Program, 1985-86	25
Table 13: Mean N.C.E. Scores of Full-Year Students, by Grade, on the Language Mechanics Subtest of the CAT for Clinical and Guidance Program Students in the Reading Skills Center Program, 1985-86	26
Table 14: Mean N.C.E. Scores of Full-Year Students, by Grade, on the Language Expression Subtest of the CAT for Clinical and Guidance Program Students in the Reading Skills Center Program, 1985-86	27
Table 15: Mean N.C.E. Scores of Full-Year Students, by Grade, for the Total Score on the Norm-Referenced Mathematics Test for Clinical and Guidance Program Students in the Corrective Mathematics Program, 1985-86	28
Table 16: Mean N.C.E. Scores of Full-Year Students, by Grade, on the Mathematics Concepts Subtest of the S.A.T. for Clinical and Guidance Program Students in the Corrective Mathematics Program, 1985-86	29
Table 17: Mean N.C.E. Scores of Full-Year Students, by Grade, on the Computation Subtest of the S.A.T. for Clinical and Guidance Program Students in the Corrective Mathematics Program, 1985-86	31
Table 18: Mean N.C.E. Scores of Full-Year Students, by Grade, on the Applications Subtest of the S.A.T. for Clinical and Guidance Program Students in the Corrective Mathematics Program, 1985-86	32
Table 19: Mean N.C.E. Scores of Full-Year Students, by Grade, on the Test of Basic Experiences and the Total Auditory Subtest of the S.A.T. for Clinical and Guidance Program Students in the E.S.L. Program, 1985-86	33

LIST OF TABLES (cont.)

	<u>PAGE</u>
Table 20: Mean Raw-Score Gains of Full-Year Students, by Grade, for the Total Auditory Subtest of the S.A.T. for Clinical and Guidance Program Students in the E.S.L. Program, 1985-86	35
Table 21: Mean Raw-Score Gains of Full-Year Students, by Grade, on the OIT for Clinical and Guidance Program Students in the E.S.L. Program, 1985-86	36
Table 22: Mean Raw-Score Gains of Full-Year Students, by Grade, on the Behavior Checklist for Clinical and Guidance Program Students, 1985-86	38

I. INTRODUCTION

PROGRAM PURPOSE AND FEATURES

The Chapter I Clinical and Guidance Program of the Bureau of Nonpublic School Reimbursable Services, Division of Curriculum and Instruction, provides a variety of diagnostic and counseling services to nonpublic school students who are participants in the Chapter I instructional programs. The Clinical and Guidance Program's goal is to alleviate emotional or social problems that may interfere with a student's academic performance.

All students enrolled in Chapter I Corrective Reading, Reading Skills Center, Corrective Mathematics, or English as a Second Language (E.S.L.) Programs are eligible for the Clinical and Guidance Program. Chapter I teachers, classroom teachers, and school administrators provide referrals to the program. In addition, a small number of students refer themselves. Once the referral has been made, the program staff assesses students' needs. Teachers administer the Behavior Checklist* (see Appendix A), and the program staff then diagnoses students' problem areas and assigns students to individual and/or group counseling; in a few cases, the staff refers students to outside agencies. The

*The Behavior Checklist is a 25-item questionnaire identifying behaviors which, if practiced by students, would interfere with successful academic performance. Teachers can check how often (never, seldom, half of the time, often, always) a particular behavior is exhibited by a student. The Behavior Checklist is used as part of a pretest-posttest design before and after student participation in the Clinical and Guidance Services Program. It is expected that intervention will lead to an improvement in students' behavior and attitude.

staff also consults with teachers and/or with members of the child's family. Chapter I teachers reassess their students at the end of the school year with the Behavior Checklist.

ELIGIBILITY

Any student participating in a Chapter I instructional program is eligible for the Clinical and Guidance Program as long as the service is provided in his or her particular school. The screening test used to determine Chapter I eligibility is a standardized test generally given in April by the nonpublic schools. Most nonpublic schools participating in the Chapter I instructional programs use either the Scott-Foresman Test or the Comprehensive Test of Basic Skills as the annual test. Pupils are eligible for Chapter I services if they score at or below the following:

<u>Grade</u>	<u>Cutoff</u>
2	2.4 Grade Equivalent (G.E.)*
3	3.1
4	3.9
5	4.7
6	5.7
7	6.7
8	7.7
9	8.7
10-12	Two or more years below grade level in reading

*A G.E. indicates the grade placement by year and month of students for whom a given score is typical. Grade equivalents are not directly comparable across different tests. Moreover, because G.E.s are not spaced equally apart, they cannot be used in arithmetic or statistical calculations. Most important, it is often assumed that a grade G.E. represents the level of work a student is capable of doing. For example, it is not the case that a ninth-grade student who obtains a G.E. of 11.6 belongs in the eleventh grade; rather a G.E. of 11.6 simply indicates that the student scored as well as a typical eleventh-grader might have scored on the ninth-grade level test. Although this may indicate an above-average level of achievement, it does not indicate that the ninth-grader is ready for eleventh-grade level work.

STUDENTS SERVED

A total of 25,265* students were enrolled in Chapter I programs during 1985-86. Of these, 10,536 students participated in the Clinical and Guidance Program. Individual Chapter I programs enrolled varying percentages of their students to the Clinical and Guidance Program (Table 1). Enrollment depended on whether there were clinical and guidance staff available at the site. Students were enrolled by nonpublic school staff or Chapter I staff, or enrolled themselves. Again this year, the Reading Skills Center Program enrolled the highest percentage of students -- 78 percent. The E.S.L. Program enrolled the lowest percentage of students, 35 percent. The Corrective Reading Program, enrolled the largest actual number of students, who comprised 54 percent of those participating in the program. The Corrective Mathematics Program also referred 54 percent of their students for clinical and guidance services.

As Table 2 indicates, the Clinical and Guidance Program served many more elementary than secondary students; 92 percent were from kindergarten through grade eight. Only three percent of the total came from grades ten, eleven, and twelve. Emphasis is placed on elementary school students because Chapter I instructional programs primarily serve students in the lower grades.

*This count includes duplicates of students because some students participate in more than one Chapter I instructional program.

TABLE 1

Number of Students in Chapter I
Instructional Programs Who Participated in the
Clinical and Guidance Program, 1985-86

Chapter I Instructional Program	Total ^a Participating Students	<u>Students in Clinical Guidance</u>	
		Number	Percentage
Corrective Reading	11,549	6,287	54%
Reading Skills Center	585	458	78
Corrective Mathematics	8,825	4,733	54
English as a Second Language	4,305	1,500	35
Clinical and Guidance	10,536 ^b	--	--

^aNumbers reflect a duplicate count of students across the programs since students may be in more than one Chapter I program.

^bThis figure represents the unduplicated count of students in the Clinical and Guidance Program.

- More than three-quarters of the Reading Skills Center Program participants were referred for clinical and guidance services.
- Corrective Reading and Corrective Mathematics referred just over one-half of their participants for clinical and guidance services.
- More than one-third of the E.S.L. students received clinical and guidance services.

TABLE 2

Student Participation
in the Clinical and Guidance Program,
by Grade, 1985-86

Grade	Number of Students	Percent
K	212	2.0%
1	695	6.6
2	1,515	14.4
3	1,701	16.1
4	1,696	16.1
5	1,399	13.3
6	1,129	10.7
7	833	7.9
8	555	5.3
9	490	4.7
10	175	1.7
11	95	0.9
12	39	0.4
Total in Clinical Guidance	10,534 ^a	

^aThere were two participants without grade information. Thus, the program served 10,536 students.

- Grades two through six participated most heavily in the Clinical and Guidance Program, comprising 71 percent of students who made use of services.
- Grades three and four had the greatest number of students participating in the Clinical and Guidance Program, referring 1,701 and 1,696 students, respectively. Each grade comprised 16.1 percent of the total student population participating in the program.

PROGRAM OBJECTIVES

The Clinical and Guidance Program's primary goal is to help the students enrolled in the program with the emotional or social problems that interfere with the students' academic performance. To this end, Clinical and Guidance Program staff provided a variety of diagnostic and counseling services, primarily in the form of individual counseling, group counseling, or both.

The program used the Chapter I Evaluation Model A to determine the impact of counseling services on participating students in grades kindergarten through twelve. The goal was to have students make gains of five Normal Curve Equivalents* (N.C.E.s) or statistically significant gains from pretest to posttest tests of reading achievement, mathematics achievement, or linguistic skills. Students in the program also received behavioral evaluations through the use of the Behavior Checklist, which identifies behaviors interfering with successful academic performance. The goal was to have students improve their behavior and attitude during their participation in the program.

PROGRAM EVALUATION

The purpose of the 1985-86 evaluation by the Office of Educational Assessment/Instructional Support Evaluation Unit

*N.C.E. scores are similar to percentile ranks, but unlike percentile ranks are based on an equal-interval scale. These scores are based on a scale ranging from one to 99, with a mean of 50 and a standard deviation of approximately 21. Because N.C.E. scores are equally spaced apart, arithmetic and statistical calculations such as averages are meaningful; in addition, comparisons of N.C.E. scores may be made across different achievement tests.

(O.E.A./I.S.E.U.) was to describe the Clinical and Guidance program and to assess the program's impact on student achievement. The following methods were used to conduct this evaluation.

- Interviews with Program staff and review of documents focused on describing: the program organization and funding; the services provided; and the staff development activities.
- Analyses of data retrieval forms to report information about: grade placement; number of years in the program; participation in other Chapter I program(s); referral reasons; type of session; and number of contact hours.
- Analyses of student scores on standardized reading and mathematics tests; the Oral Interview Test (OIT); and the Behavior Checklist.

SCOPE OF THE REPORT

This report presents the evaluation of the 1985-86 Chapter I Clinical and Guidance Program. The first chapter presents the program's purpose and features, its objectives and evaluation methods, and the scope of the evaluation. Program organization and funding are described in Chapter II, and student outcome data are presented in Chapter III. Chapter IV includes conclusions and recommendations. A copy of the Behavior Checklist (the initial screening form for Students Referred for Clinical and Guidance Services) and a description of 1985-86 Chapter I Nonpublic School Reimbursable Programs are included as appendices.

II. ORGANIZATION AND FUNDING

PROGRAM ORGANIZATION

During 1985-86, the Clinical and Guidance Program provided a variety of diagnostic and counseling services to 10,536 nonpublic school students enrolled in the Chapter I remedial instructional programs. Students may be referred by their Chapter I teacher, classroom teacher, or principal. Students may also enroll themselves in the program. Most students (93 percent) were referred by their Chapter I teachers. Most referrals (66 percent) were due to poor academic performance; disruptive behavior and family problems were the next two most frequent reasons for referral (Table 3).

Table 4 shows the number of students in each of the four Chapter I instructional programs according to the number of years they have participated in the Clinical and Guidance Program. Fifty-two percent of the students in the Corrective Reading Program were participating for the first time; 44 percent in the Reading Skills Program; 56 percent in the Corrective Math Program; and 49 percent of students in E.S.L. Program. (Eighty-seven percent of students participating for the first time were recommended for an additional year of treatment.) Participants participating for two years or more comprised 48 percent of students in the Corrective Reading Program; 56 percent in the Reading Skills Program; 44 percent in the Corrective Math Program; and 51 percent of students in the E.S.L. Program.

TABLE 3

Number and Percent of Students Referred to
Clinical Guidance Program,
by Reason for Referral, 1985-86

	Number	Percent
Underachievement	6,899	66%
Acting out behavior	882	8
Family problems	756	7
Shy or withdrawn	538	5
Change in program	446	4
Educationally handicapped	373	4
Relating to others	389	4
Health	100	1
Other	123	1
TOTAL ^a	10,506	100

^aThere were 30 students for whom the reason for referral was not given.

- The majority of the referrals were made for students underachieving in academic subjects.
- The second and third categories, "acting out behavior" and "family problems," comprised eight and seven percent of students referred to the Clinical and Guidance Program, respectively.

TABLE 4

Student Participation in the Clinical and Guidance
Program, by Years, in Chapter I
Instructional Programs, 1985-86

Years	Corrective Reading		Reading Skills		Corrective Math		English as a Second Language	
	N	%	N	%	N	%	N	%
1	3,239	52%	204	44%	2,648	56%	742	49%
2	1,850	29	132	29	1,354	29	474	32
3+	1,182	19	122	27	721	15	284	19
TOTAL ^a	6,271 ^b		458		4,723 ^c		1,500	

^aTotals reflect duplicate counts of students across programs, since students may be in more than one program.

^bThere were 16 students for whom records were incomplete; therefore, the total number of students was 6,287.

^cThere were ten students for whom records were incomplete; therefore, the total number of students was 4,733.

- In two of the programs, the majority of students were participating for the first time, accounting for 56 percent of students in the Corrective Math Program and 52 percent in the Corrective Reading Program.
- In two of the programs, the majority of the students were participating for two or more years: 56 percent of the students in the Reading Skills Program and 51 percent of the students in the E.S.L. Program.

Clinical and Guidance Program personnel served the students through individual counseling, group sessions, or a combination of individual and group counseling. Table 5 indicates that 45 percent of the students received individual counseling; 16 percent participated in group sessions; and 39 percent received both individual and group counseling.

A total of 123 guidance counselors, 56 psychologists, and 23 social workers and one psychiatrist served as staff members and provided services. Guidance counselors saw by far the greatest number of students (Table 6) for the highest average number of sessions, 10.6 (Table 7). Psychologists and social workers both spent an average of 8.4 sessions with the students over the school year. Students received a combined average of 16 treatment sessions from clinical and guidance staff.

STAFF DEVELOPMENT

Clinical and Guidance Program staff received pre-service and in-service training at 35 workshops and/or conferences held at a variety of locations. Topics included: teenage suicide prevention, cancer prevention, the affects of nutrition on behavior, and the treatment of children of substance abusers. In addition, in-service training presented specific strategies for counseling, and assessment.

FUNDING

The Clinical and Guidance Program budget is provided by Chapter I monies from the federal government; funding for 1985-86

TABLE 5

Type of Service Received, by Years, in the
Clinical and Guidance Program, 1985-86

Type of Session	One Year		Two Years		Three Years or More	
	N	Percent	N	Percent	N	Percent
Individual	2,848	48%	1,234	41%	4,669	45%
Group	887	15	475	16	1,634	16
Individual & Group	2,161	37	1,281	43	4,141	39
TOTAL ^a	5,893	100	2,990	100	10,444	100

^aThis figure comprises unduplicated counts of students in the Clinical and Guidance Program.

- Students receiving individual sessions comprised nearly half of students receiving services for one and three years, and more than two-fifths of students receiving services for two years.
- About one-sixth of the student population in each category participated in group sessions.
- Approximately two-fifths of students in each category received both individual and group sessions.

TABLE 6

Number of Students Seen, by Years,
in the Clinical and Guidance Program, 1985-86

	<u>One Year</u>		<u>Two Years</u>		<u>Three Years or More</u>		TOTAL ^a
	N	Percent	N	Percent	N	Percent	
Guidance Counselor	5,095	57%	2,591	29%	1,318	14%	9,004
Psychologist	1,123	51	668	30	419	19	2,210
Social Worker	720	52	395	29	257	19	1,372

^aThis figure comprises duplicated counts of students in the Clinical and Guidance Program, since some students were seen by two or more staff members.

- The guidance counselor saw the overwhelming majority of students (72 percent).
- Students in their first year in the Clinical and Guidance Program comprised more than one-half of students seen in each of the three professional categories.

TABLE 7

Mean Number of Sessions, by Years, in the Clinical and Guidance Program, 1985-86

	One Year	Two Years	Three Years or More	TOTAL
Guidance Counselor	9.8	11.3	12.2	10.6
Psychologist	8.3	8.2	8.9	8.4
Social Worker	7.4	8.9	10.6	8.4
Combined ^a	13.8	15.4	21.4	15.7

^aThis category represents the mean number of sessions during which student's saw any clinical and guidance staff.

- Students saw a guidance counselor for an average of 10.6 sessions.
- Students saw psychologists and social workers both for an average of 8.4 sessions.
- The mean number of sessions during which a student saw any of the clinical and guidance staff was 15.7.

totalled \$7.9 million. This funding provided support for a staff of two coordinators, three field supervisors, 23 social workers, 123 guidance counselors, 56 psychologists, and one psychiatrist at 201 nonpublic schools.

III. STUDENT OUTCOME DATA

METHODOLOGY

The Chapter I Evaluation Model was used to determine the impact of counseling services on student achievement in kindergarten through grade twelve. Chapter I Model A Evaluation Design assumes that, without special intervention, students' N.C.E. scores will remain the same from pretest to posttest. Thus, the increases in scores from pretest to posttest may be attributed to the success of the program in producing greater than normal increases in student achievement.

Test score data were calculated for all students who were in a Chapter I program for at least five months and who took both the pretest and posttest. Students in all of the Chapter I programs (except the E.S.L. Program) take a norm-referenced pretest and posttest to assess their achievement in their respective programs. In addition, Clinical and Guidance Program students in the E.S.L. Program were given the Oral Interview Test (OIT)* to determine their language proficiency. The testing instruments used vary with the instructional program and grade level. These tests are indicated in Figure 1.

*The OIT is an informal, staff-developed, criterion-referenced instrument designed to assess students' cognitive and linguistic skills. Students' oral responses are elicited with the use of pictorial stimuli. The OIT includes the following sections: a warm-up interview that is not scored; a section measuring oral comprehension; and a section measuring oral discourse (fluency). Altogether, students respond to twenty-eight scored questions; test results are reported in raw-score units. Students are determined to be at a beginner, an intermediate, or an advanced level.

FIGURE 1

Nonpublic School Testing Program, 1985-86^a

Program Name	Test Name	Subtest Administered	Grades
Corrective Reading	Stanford Early School Achievement Test	Environment	1
		Letters & Sounds	1
		Aural Comprehension	1
	California Achievement Test	Reading Comprehension	2-12
		Language Mechanics	2-12
		Language Expression	2-12
Reading Skills Center	California Achievement Test	Reading Comprehension	4-8
		Language Mechanics	4-8
		Language Expression	4-8
Corrective Mathematics	Stanford Early School Achievement Test	Total Mathematics	1
	Stanford Achievement Test	Concepts	2-8
		Computation	2-8
		Application	2-8
		Total Mathematics	2-8
	Stanford Test of Academic Skills	Total Mathematics	9-12
English as a Second Language	Test of Basic Experience	Language	K-1
	Stanford Achievement Test	Total Auditory	2-8
		Total Reading	2-8
	Oral Interview Test	Total Score	K-8

^aAll tests were given in the Fall and Spring of the school year.

Chapter I students receiving clinical and guidance services were expected to show achievement gains greater than those of the norm group. A mean gain of five N.C.E.s between pretest and posttest scores was the program's evaluation objective. For those students in grades three through eight who were in the E.S.L. Program, the criterion for success was a statistically significant mean gain from pretest to posttest. (There are no N.C.E. conversions for the out-of-level testing done for these grades.) Also, the effect size (E.S.)* was calculated to assist the program staff in determining the emphasis for staff development and interfacing with the Chapter I instructional teachers.

Students in the Clinical and Guidance Program also received behavioral evaluations. The Behavior Checklist, developed jointly by the Clinical and Guidance Program and O.E.A. staff, is used to measure the changes in behaviors and attitudes of individual students participating in the Clinical and Guidance Program. (It identifies behaviors which, if practiced by students, would interfere with successful academic performance.) A high score indicates multiple behavior problems and/or problems of a great intensity. It was expected that participation in the Clinical and Guidance Program would lead to an improvement in the

*The E.S., developed by Jacob Cohen, is the ratio of the mean gain to the standard deviation of the gain. The ratio provides an index of improvement in standard deviation units irrespective of the size of the sample. According to Cohen, .2 is a small E.S., .5 is a moderate E.S., and .8 is considered a large E.S. Only E.S.s of .8 and above are considered educationally meaningful.

behavior and attitudes of the students.

CORRECTIVE READING PROGRAM FINDINGS

Tables 8 through 11 indicate the results of analyses of student achievement for Corrective Reading Program participants.

On two of the three subtests, the first graders exceeded the program's goal of a gain of five N.C.E.s. They made their strongest gains, 8.6 N.C.E.s, on the Aural Comprehension subtest (Table 8). They gained 7.1 N.C.E.s in The Environment subtest, but made only small gains, 2.1 N.C.E.s, on the Letters and Sounds subtest.

Students in grades two through twelve took three subtests of the CAT. The results show a mean gain of 9.2 N.C.E.s for the Reading Comprehension subtest (Table 9); and Tables 10 and 11 show that for the Language Mechanics and Language Expression subtests, students made mean gains of 7.5 and 7.2 N.C.E.s, respectively. The average mean gain on all three subtests surpass five N.C.E.s, the program's criterion for success for the three subtests.

The E.S.s for the average mean gain for all grades were moderate. Students did best on the Reading Comprehension subtest, with grades nine and twelve showing large, educationally meaningful E.S.s.

READING SKILLS CENTER PROGRAM FINDINGS

Tables 12 through 14 present the mean gains for grades four through eight on the three subtests of the CAT: Reading

TABLE 8

Mean N.C.E. Scores of Full-Year First-Grade Students on the
SESAT for Clinical and Guidance Program Students
in the Corrective Reading Program, 1985-86

Subtest	N	Pretest		Posttest		Difference		Effect Size
		Mean	S.D.	Mean	S.D.	Mean	S.D.	
The Environment	148	11.8	12.7	19.0	14.5	7.1 ^a	13.2	.5
Letters and Sounds	148	16.6	13.4	18.8	15.8	2.1	14.4	.1
Aural Compre- hension	147	15.7	12.8	24.3	16.4	8.6 ^a	14.3	.6

^aThese differences were statistically significant at $p \leq .05$.

- On both The Environment and Aural Comprehension subtests, students had mean gains of more than seven N.C.E.s. These gains were statistically significant.
- On the Letters and Sounds subtest, students had a small mean gain, 2.1 N.C.E.s.
- The mean gains from pretest to posttest scores indicate moderate E.S.s for The Environment and Aural Comprehension subtests.

TABLE 9

Mean N.C.E. Scores of Full-Year Students, by Grade,
on the Reading Comprehension Subtest of the CAT
for Clinical and Guidance Program Students in
the Corrective Reading Program, 1985-86

Grade	N	Pretest		Posttest		Difference ^a		Effect Size
		Mean	S.D.	Mean	S.D.	Mean	S.D.	
2	764	27.7	15.4	41.1	14.0	13.4	18.1	.7
3	986	31.7	12.5	39.9	13.4	8.2	12.9	.6
4	998	29.1	13.9	39.4	11.9	10.3	14.9	.7
5	873	30.4	13.3	38.1	13.2	7.7	12.9	.6
6	648	31.2	13.4	39.5	12.1	8.3	12.8	.6
7	470	34.0	12.7	43.4	12.0	9.4	13.4	.7
8	302	35.6	14.0	44.8	11.6	9.2	13.2	.7
9	349	40.1	10.5	50.1	11.0	10.0	11.5	.9
10	139	37.5	12.8	46.2	10.2	8.7	11.9	.7
11	74	40.4	17.7	47.4	14.7	7.1	14.6	.5
12	27	25.1	19.8	38.1	17.9	13.0	10.0	1.3
TOTAL	5,630	31.9	14.2	41.1	13.5	9.2	14.1	.7

^aThese differences were statistically significant at $p \leq .05$.

- Mean gains ranged from 7.1 to 13.4 N.C.E.s.
- E.S.s ranged from moderate to large; grades nine and twelve showed large, educationally meaningful E.S.s.

TABLE 10

Mean N.C.E. Scores of Full-Year Students, by Grade, on the Language Mechanics Subtest of the CAT for Clinical and Guidance Program Students in the Corrective Reading Program, 1985-86

Grade	N	Pretest		Posttest		Difference		Effect Size
		Mean	S.D.	Mean	S.D.	Mean	S.D.	
2	767	31.5	18.4	43.7	17.2	12.2	19.2 ^a	.6
3	982	35.5	15.9	44.8	15.8	9.3	15.8 ^a	.6
4	988	39.0	17.2	47.0	16.9	7.9	16.4 ^a	.5
5	856	42.5	15.8	48.3	17.1	5.8	15.2 ^a	.4
6	636	40.2	15.7	46.4	15.8	6.2	13.3 ^a	.5
7	469	42.5	14.3	47.6	14.2	5.1	12.3 ^a	.4
8	302	47.1	15.1	51.5	14.4	4.4	12.2 ^a	.4
9	348	48.6	15.3	53.4	14.9	4.8	12.9 ^a	.4
10	139	42.8	12.5	46.8	11.8	4.0	9.6 ^a	.4
11	74	48.7	18.2	51.1	16.8	2.4	12.9	.2
12	27	34.1	23.5	41.5	18.2	7.4	17.1 ^a	.4
TOTAL	5,588	39.5	17.4	47.0	16.9	7.5	15.5 ^a	.5

^aThese gains were statistically significant at $p \leq .05$.

- Grade two gained more than 12 N.C.E.s. Grades three, four, five, six, seven, and twelve achieved more than five N.C.E.s.
- In general, mean gains represented moderate E.S.s.

TABLE 11

Mean N.C.E. Scores of Full-Year Students, by Grade,
on the Language Expression Subtest of the CAT for Clinical and
Guidance Program Students in the Corrective Reading Program,
1985-86

Grade	N	Pretest		Posttest		Difference ^a		Effect Size
		Mean	S.D.	Mean	S.D.	Mean	S.D.	
2	761	30.8	15.6	38.1	15.0	7.3	18.0	.4
3	983	31.0	14.6	38.7	14.5	7.7	15.7	.5
4	990	30.3	14.5	38.7	16.1	8.4	15.1	.6
5	871	33.0	15.2	40.2	17.2	7.2	14.7	.5
6	645	34.4	15.2	43.1	14.5	8.7	13.9	.6
7	469	36.3	14.6	42.0	14.0	5.7	13.5	.4
8	301	38.8	13.6	44.5	12.7	5.7	10.8	.5
9	348	41.3	12.0	46.8	12.6	5.5	11.9	.5
10	139	37.6	13.4	41.8	12.3	4.2	10.8	.4
11	74	40.9	18.3	47.1	18.8	6.2	16.6	.4
12	27	29.3	22.1	35.9	16.7	6.6	12.1	.5
TOTAL	5,608	33.4	15.4	40.6	15.6	7.2	14.9	.5

^aAll differences were statistically significant at $p \leq .05$.

- All grades, except grade ten, achieved mean gains of more than five N.C.E.s.
- In general, mean gains represented moderate effect sizes.

Comprehension, Language Mechanics, and Language Expression.

On the Reading Comprehension subtest, students had an average mean gain of 11.7 N.C.E.s, an increase more than double the five-N.C.E. gain criterion of success (Table 12). The mean gains ranged from 9.7 N.C.E.s in grade eight to 13.6 N.C.E.s in grade seven. All grades except grade five had mean gains which represented large, educationally meaningful E.S.s.

Clinical and Guidance Program students who took the Language Mechanics subtest had a mean gain of 6.8 N.C.E.s (Table 13). Only grade eight had a mean gain that was less than five N.C.E.s. Grade six achieved a large, educationally meaningful E.S.

On the Language Expression subtest, grades five, six, and seven had mean gains that were greater than five N.C.E.s (Table 14). The E.S.s ranged from small to large, with grade six showing large, educationally meaningful E.S.

CORRECTIVE MATHEMATICS PROGRAM FINDINGS

Students in grades one through twelve made an overall mean gain of 14 N.C.E.s on the S.A.T. Total Mathematics score,, almost tripling the program's goal of a five-N.C.E. gain (Table 15). The mean gains were statistically significant. Grade one achieved the highest average gain, nearly 33 N.C.E.s. In general, E.S.s were large, representing educationally meaningful increases.

Table 16 presents the results of the Mathematics Concepts subtest for grades two through eight. The overall mean gain was 13.0 N.C.E.s; grade two had the greatest mean gain, 19.4 N.C.E.s,

TABLE 12

Mean N.C.E. Scores of Full-Year Students, by Grade, on the
Reading Comprehension Subtest of the CAT for Clinical and
Guidance Program Students in the
Reading Skills Center Program, 1985-86

Grade	N	<u>Pretest</u>		<u>Posttest</u>		<u>Difference</u>		Effect Size
		Mean	S.D.	Mean	S.D.	Mean	S.D.	
4	39	27.1	15.3	39.5	11.0	12.4	14.9	.8
5	83	28.9	14.1	39.2	13.5	10.3	14.8	.7
6	104	25.3	16.9	38.5	13.9	13.2	16.0	.8
7	108	30.3	15.9	43.9	10.9	13.6	13.9	1.0
8	89	33.6	14.7	43.3	12.6	9.7	12.6	.8
TOTAL	423	29.2	15.7	40.9	12.8	11.7	14.5	.8

^aThese mean differences were statistically significant at $p \leq .05$.

- All grades had gains of more than nine N.C.E.s.
- All mean gains except for grade five, represented large, educationally meaningful E.S.s.

TABLE 13

Mean N.C.E. Scores of Full-Year Students, by Grade, on the Language Mechanics Subtest of the CAT for Clinical and Guidance Program Students in the Reading Skills Center Program, 1985-86

Grade	N	Pretest		Posttest		Difference ^a		Effect Size
		Mean	S.D.	Mean	S.D.	Mean	S.D.	
4	39	41.1	19.7	48.8	15.8	7.7	12.4	.6
5	83	41.5	18.5	47.0	17.8	5.5	18.1	.3
6	103	42.4	15.2	51.4	15.2	9.0	9.8	.9
7	108	42.3	15.1	50.3	13.0	8.0	13.7	.6
8	89	48.1	15.5	52.4	15.0	4.3	11.1	.4
TOTAL	422	43.3	16.5	50.1	15.3	6.8	13.3	.5

^aThese mean score gains were statistically significant at $p \leq .05$.

- All grades, but grade eight, had mean gains of more than five N.C.E.s.
- For grade six, the E.S. was large and educationally meaningful.

TABLE 14

Mean N.C.E. Scores of Full-Year Students, by Grade, on the Language Expression Subtest of the CAT for Clinical and Guidance Program Students in the Reading Skills Center Program, 1985-86

Grade	N	Pretest		Posttest		Difference		Effect Size
		Mean	S.D.	Mean	S.D.	Mean	S.D.	
4	35	33.9	14.5	36.7	12.5	2.8	13.3	.2
5	83	33.8	14.1	41.7	18.2	7.9	16.6 ^a	.5
6	104	33.2	16.9	45.0	12.3	11.8	15.4 ^a	.8
7	106	36.1	13.6	42.3	12.6	6.2	12.4 ^a	.5
8	89	39.9	12.2	44.6	12.5	4.7	11.9 ^a	.4
TOTAL	417	35.5	14.5	42.9	13.9	7.4	14.3 ^a	.5

^aThese mean differences were statistically significant at $p \leq .05$.

- Grades five, six, and seven had mean gains that were greater than five N.C.E.s.
- The E.S.s ranged from small to large; grade six achieved a large, educationally meaningful E.S. Grades five, six, and seven had mean gains that were greater than five N.C.E.s.

TABLE 15

Mean N.C.E. Scores of Full-Year Students, by Grade, for the
Total Score on the Norm-Referenced Mathematics Test
for Clinical and Guidance Program Students
in the Corrective Mathematics Program, 1985-86

Grade	N	Pretest		Posttest		Difference ^a		Effect Size
		Mean	S.D.	Mean	S.D.	Mean	S.D.	
1	54	12.1	10.3	44.8	18.0	32.7	21.7	1.5
2	601	17.0	12.5	37.3	16.3	20.3	13.5	1.5
3	863	21.0	11.6	34.9	15.7	13.9	13.0	1.1
4	799	26.5	11.6	41.9	14.9	15.4	11.6	1.3
5	645	26.1	11.5	35.0	15.2	8.9	13.1	.7
6	487	26.1	11.1	39.2	14.3	13.1	10.4	1.3
7	282	29.6	10.3	39.6	10.5	10.0	11.6	.9
8	149	29.1	11.1	35.0	9.9	5.9	9.5	.6
9	273	27.0	11.7	43.3	13.3	16.3	11.8	1.4
10	79	30.5	11.2	38.1	10.1	7.6	9.5	.8
11	24	32.6	11.2	47.3	13.1	14.7	7.9	1.9
12	9	36.3	11.9	47.1	11.7	10.8	5.3	2.0
TOTAL	4,265	24.2	12.3	38.2	15.0	14.0	13.1	1.1

^aThese differences were statistically significant at $p \leq .05$.

- All grades had mean gains of more than five N.C.E.s. Grades one, two, four, and nine had mean gains that were greater than 15 N.C.E.s.
- In general, mean gains represented large E.S.s.

TABLE 16

Mean N.C.E. Scores of Full-Year Students, by Grade, on the Mathematics Concepts Subtest of the S.A.T. for Clinical and Guidance Program Students in the Corrective Mathematics Program, 1985-86

Grade	N	Pretest		Posttest		Difference ^a		Effect Size
		Mean	S.D.	Mean	S.D.	Mean	S.D.	
2	627	17.3	13.0	36.7	17.6	19.4	15.8	1.2
3	864	23.2	12.8	35.2	16.1	12.0	15.4	.8
4	801	26.7	14.4	42.4	17.7	15.7	15.6	1.0
5	645	30.2	14.2	38.2	16.3	8.0	15.6	.5
6	490	29.4	14.4	41.8	15.1	12.4	14.3	.9
7	282	31.9	13.2	41.8	11.7	9.9	14.9	.7
8	149	28.0	13.4	35.3	12.4	7.5	12.4	.6
TOTAL	3,858	25.7	14.4	38.8	16.5	13.0	15.7	.8

^aThese differences were statistically significant at $p \leq .05$.

- All grades had mean gains of more than seven N.C.E. points; grade two had a mean gain of 19.4 N.C.E.s.
- Grades two, three, four and six showed large E.S.s, representing educationally meaningful mean gains.

and grade eight had the lowest gain, 7.5 N.C.E.s. All mean gains surpassed the program criterion for success and were statistically significant. Effect sizes ranged from moderate to large; grades two, three, four, and six had E.S.s that were large and educationally meaningful.

The overall mean gain on the Computation subtest for grades two through eight was 13.8 N.C.E.s, with a large, educationally meaningful E.S. (Table 17). All grades had mean gains of 6.4 N.C.E.s or more, exceeding the five-N.C.E. gain, the criterion of the program's success; the highest mean gain, 19.0 N.C.E.s, was achieved by grade four. All mean differences were statistically significant. Grades three, four, and six had E.S.s that were large and educationally meaningful.

On the Applications subtest, the total mean gain was 10.6 N.C.E.s, with an E.S. that was large and educationally meaningful (Table 18). All grades had mean gains of more than five N.C.E.s, the program's criterion of success, ranging from grade five's gain of 7.9 N.C.E.s to grade three's gain of 13.6 N.C.E.s. All mean gains were statistically significant. The E.S.s ranged from moderate to large, with grades three, six, and seven showing large, educationally meaningful gains.

ENGLISH AS A SECOND LANGUAGE PROGRAM FINDINGS

The scores for students in kindergarten and first grade on the Test of Basic Experiences (TOBE) and for second-graders on the Stanford Achievement Test (S.A.T.) are presented in Table 19. The mean gains were greater than eight N.C.E.s for all three

TABLE 17

Mean N.C.E. Scores of Full-Year Students, by Grade, on the Computation Subtest of the S.A.T. for Clinical and Guidance Program Students in the Corrective Mathematics Program, 1985-86

Grade	N	Pretest		Posttest		Difference ^a		Effect Size
		Mean	S.D.	Mean	S.D.	Mean	S.D.	
3	864	27.2	15.3	42.5	19.9	15.3	19.3	.8
4	803	32.0	15.6	51.0	19.1	19.0	18.4	1.0
5	647	30.3	14.1	41.2	18.1	10.9	17.1	.6
6	490	30.2	15.1	41.9	16.6	11.7	14.2	.8
7	282	30.0	12.8	38.5	12.0	8.5	14.8	.6
8	149	29.7	13.7	36.1	12.1	6.4	12.6	.5
TOTAL	3,235	29.8	14.9	43.6	18.5	13.8	17.7	.8

^aThese differences were statistically significant at $p \leq .05$.

- All grades had mean gains that surpassed six N.C.E. points; grades three through six had gains of 10.9 to 19.0 N.C.E.s.
- E.S.s ranged from moderate to large.

TABLE 18

Mean N.C.E. Scores of Full-Year Students, by Grade, on the Applications Subtest of the S.A.T. for Clinical and Guidance Program Students in the Corrective Mathematics Program, 1985-86

Grade	N	Pretest		Posttest		Difference ^a		Effect Size
		Mean	S.D.	Mean	S.D.	Mean	S.D.	
3	863	21.1	13.5	34.7	15.6	13.6	14.7	.9
4	800	28.2	11.8	37.1	14.1	8.9	12.2	.7
5	645	23.7	13.1	31.6	15.8	7.9	14.7	.5
6	490	25.1	12.5	36.7	15.0	11.6	13.5	.9
7	281	27.4	12.7	39.8	12.3	12.4	14.4	.9
8	148	25.8	13.4	34.0	11.3	8.2	12.1	.7
TOTAL	3,227	24.8	13.1	35.4	14.9	10.6	14.0	.8

^aThese differences were statistically significant at $p \leq .05$.

- The mean gains for all grades surpassed seven N.C.E.s. Grades three, six, and seven had gains that ranged from 11.6 to 13.6 N.C.E.s.
- E.S.s ranged from moderate to large.

TABLE 19

Mean N.C.E. Scores of Full-Year Students, by Grade, on the Test of Basic Experiences and the Total Auditory Subtest of the S.A.T. for Clinical and Guidance Program Students in the E.S.L. Program, 1985-86

Grade	N	Pretest		Posttest		Difference ^a		Effect Size
		Mean	S.D.	Mean	S.D.	Mean	S.D.	
K ^b	199	16.4	15.2	30.1	18.2	13.7	16.9	.8
1 ^b	359	16.4	13.6	27.4	17.3	11.0	14.5	.8
2 ^c	405	17.3	11.2	26.2	16.1	8.9	11.4	.8

^aAll mean differences were statistically significant at $p \leq .05$.

^bStudents in Kindergarten and first grade took the Test of Basic Experiences (TOBE).

^cStudents in second grade took the Total Auditory subtest of the S.A.T. (The norm for this test is based on an English-speaking population.)

All three grades had mean gains greater than eight N.C.E.s.

- The mean gains for all three grades represented large, educationally meaningful E.S.s.

grades; moreover, the E.S. for each grade was .8, indicating large, educationally meaningful gains. For third-graders through eighth-graders the criterion for success, a five-N.C.E. gain from pretest to posttest, was not possible, because they were given the second-grade level of the S.A.T. and no norms are available for this out-of-level testing. Therefore, the criterion set was a statistically significant gain from pretest to posttest. The statistically significant mean raw-score gain was 7.8 points for the Total Auditory subtest of the S.A.T. (Table 20). This mean gain met the program's goal of a statistically significant mean gain from pretest to posttest.

Table 21 presents the student gains on the program developed OIT. The overall mean gain was 6.2 raw-score points, which was statistically significant. The mean gains for all grades on the OIT represented large E.S.s. Without exception, all E.S.L. tests showed meaningful levels of educational achievement. This was true of all grade levels tested.

BEHAVIORAL AND ATTITUDINAL CHANGES

During 1985-86, 10,536 students participated in the Clinical and Guidance Program. Ninety-five percent of these students had both pretest and posttest scores on the revised Behavior Checklist. Unlike scores on the other tests reported previously in this evaluation, lower scores on the Behavior Checklist indicated fewer and/or less severe behavior problems. In other words, a drop in the score illustrated a positive change. All results were given in raw scores.

TABLE 20

Mean Raw-Score Gains of Full-Year Students, by Grade, for the
Total Auditory Subtest of the S.A.T. for Clinical and Guidance
Program Students in the E.S.L. Program, 1985-86

Grade	N	Pretest		Posttest		Difference ^a		Effect Size
		Mean	S.D.	Mean	S.D.	Mean	S.D.	
3	201	39.1	10.3	47.4	8.6	8.3	5.9	1.4
4	98	44.1	12.4	50.6	9.6	6.5	6.9	.9
5	51	40.8	15.2	49.8	10.7	9.0	11.2	.8
6	39	44.7	13.2	52.4	11.5	7.7	6.3	1.2
7	25	44.2	14.5	51.8	10.5	7.6	6.9	1.1
8	23	41.0	13.3	48.2	10.8	7.2	7.5	1.0
TOTAL	437	41.3	11.2	49.1	9.6	7.8	7.1	1.1

^aMean differences were statistically significant at $p \leq .05$.

- The overall mean gain was 7.8 raw-score points.
- Grade five showed the greatest gain, nine points.
- The mean gains for all grades represented large, educationally meaningful E.S.s.

TABLE 21

Mean Raw-Score Gains of Full-Year Students, by Grade, on the
OIT for Clinical and Guidance Program Students in the E.S.L.
Program, 1985-86

Grade	N	Pretest		Posttest		Difference ^a		Effect Size
		Mean	S.D.	Mean	S.D.	Mean	S.D.	
K	198	5.1	4.1	11.5	5.5	6.4	3.8	1.7
1	358	8.2	4.5	14.8	4.6	6.6	3.3	2.0
2	405	12.9	5.1	18.9	4.5	6.0	3.4	1.8
3	200	15.1	5.3	20.5	4.7	5.4	3.4	1.6
4	99	16.1	9.3	22.8	8.4	6.7	3.8	1.8
5	51	14.8	7.7	20.4	5.5	5.6	4.5	1.2
6	39	15.9	6.5	21.3	5.0	5.4	3.5	1.5
7	25	15.6	7.0	22.4	5.7	6.8	4.1	1.7
8	23	18.3	7.9	22.7	6.0	4.4	4.4	1.0
TOTAL	1,398	11.4	6.7	17.6	6.2	6.2	3.6	1.7

^aThese differences were statistically significant at $p \leq .05$.

- Mean raw-score gains ranged from 4.4 points in grade eight to 6.8 points in grade seven.
- On the pretest, all students performed at the elementary (defined as a raw-score of 0-19) level, and grades three through eight advanced to the intermediate level (defined as a raw score of 20-26) on the posttest.
- All E.S.s were large and educationally meaningful.

The overall mean raw-score decrease of 10.8 points -- from a mean pretest score of 42.7 to a posttest score of 31.8 -- indicates substantial improvement in student's behavior (Table 22). Decreases among grade levels varied from a mean difference of nearly ten points (grades one and eight) to nearly 17 points (grade eleven). All improvements were statistically significant, and all E.S.s were large and educationally meaningful. However, any interpretation of the changes from pretest to posttest is open to question because the Behavior Checklist has never been administered to students not receiving clinical and guidance services.

As it is, without such a baseline, the question remains as to whether the decrease from pretest to posttest for students in the program is one that they would have achieved had they not been in the program. A relative measure of the gain could be made if the Checklist were given to students who were not receiving clinical and guidance services.

TABLE 22

Mean Raw-Score Gains of Full-Year Students, by Grade, on the
Behavior Checklist for Clinical and Guidance
Program Students, 1985-86^a

Grade	N	Pretest		Posttest		Difference ^b		Effect Size
		Mean	S.D.	Mean	S.D.	Mean	S.D.	
K	177	45.9	16.6	34.9	14.8	11.0	13.1	.8
1	643	43.9	16.9	34.0	15.5	9.9	10.3	1.0
2	1,435	44.3	16.6	33.6	14.8	10.7	9.3	1.2
3	1,633	43.0	16.3	32.4	13.9	10.6	9.8	1.1
4	1,635	43.3	16.0	32.0	13.9	11.3	10.1	1.1
5	1,353	43.0	16.1	32.6	14.5	10.4	9.9	1.1
6	1,085	42.4	16.0	31.8	13.5	10.6	10.3	1.0
7	788	41.3	16.5	30.6	14.3	10.7	10.2	1.0
8	518	38.2	16.7	28.5	15.2	9.7	10.5	.9
9	460	38.7	17.1	25.3	14.3	13.4	13.1	1.0
10	169	40.6	17.7	27.3	14.3	13.3	11.5	1.2
11	92	45.5	17.2	28.8	13.3	16.7	10.0	1.7
12	39	42.8	15.9	27.0	13.9	15.8	10.7	1.5
TOTAL	10,027	42.7	16.5	31.8	14.5	10.8	10.3	1.1

^aA decrease from pretest to posttest indicates an improvement in behavior and attitude.

^bAll mean differences were statistically significant at $p \leq .05$.

- Mean differences ranged from 9.7 points in grade eight to 16.7 points in grade eleven, with an overall mean difference of 10.8 points.
- The mean gains for all grades represented large, educationally meaningful E.S.s.

IV. CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

In general, the 1985-86 Clinical and Guidance Services Program reached its goal of helping students resolve social and emotional problems that may disrupt learning and academic performance. For the most part, students' academic achievements surpassed the program's criteria of success: a five-N.C.E. gain or a statistically significant improvement from pretest to posttest. Participants showed improvement in behavior and attitudes on the Behavior Checklist. These changes were statistically significant and educationally meaningful. Students matched last year's improvement on the Behavior Checklist, indicating reductions in the negative behavior they had shown. This combination of academic gain and improvement in behavior indicates that the program has been highly effective in reaching its objectives during this school year.

The major findings of the report can be summarized as follows:

- Students in the Corrective Reading Program achieved statistically significant and educationally meaningful gains on most grade levels. First-graders had a mean gain of 7.1 N.C.E.s on The Environment subtest, 8.6 N.C.E.s on the Aural Comprehension subtest, and 2.1 N.C.E.s on the Letters and Sounds subtest of SESAT. Grades two through twelve averaged a gain of 9.2 N.C.E.s on the Reading Comprehension subtest, 7.5 N.C.E.s on the Language Mechanics, and 7.2 N.C.E.s on the Language Expression subtest of the CAT. The E.S.s for the average mean gain for all grades were moderate. On the Reading Comprehension subtest, grades nine and twelve achieved large, educationally meaningful E.S.s.

- Students in the Reading Skills Center Program had mean gains of 11.7 N.C.E.s on the Reading Comprehension subtest, 6.8 N.C.E.s on the Language Mechanics subtest, and 7.4 N.C.E.s on the Language Expression subtest of the CAT. E.S.s ranged from small to large. On the Reading Comprehension subtest, mean gains for all grades but grade five showed large and educationally meaningful E.S.s. On the other two subtests, only grade six achieved large, educationally meaningful E.S.s.
- Students in the Corrective Mathematics Program averaged a mean gain of 14.0 N.C.E.s on the Total Score, 13.0 N.C.E.s on the Concepts subtest, 13.8 N.C.E.s on the Comprehension subtest, and 10.6 N.C.E.s on the Applications subtest. Mean gains on all three subtests and on the Total Score showed educationally meaningful E.S.s.
- E.S.L. students in grades kindergarten through two made mean gains of 13.7, 11.0 and 8.9, respectively, on standardized achievement tests. E.S.L. students in grades three through eight achieved a statistically significant mean gain of 7.8 raw-score points on the Total Auditory subtest of the S.A.T. Students in grades kindergarten through eight made a statistically significant raw-score gain of 6.2 points on the OIT.
- Students' mean scores on the Behavior Checklist decreased by 10.8 points indicating statistically significant improvement. A decrease in scores indicates a positive change.

RECOMMENDATIONS

Based on the 1985-86 program outcomes, and other information presented in this report, the following recommendations are made:

- The Behavior Checklist should be validated, since there is no information available as to how students not in the program would score or how their scores would change over the course of the academic year. The definition of a behaviorally significant change should be clarified.
- "Underachievement" should be eliminated as a category from the initial screening form of the Behavior Checklist. By definition, all students in Chapter I programs

are underachieving; thus, this is redundant and promotes a tendency for teachers to check this box.

- Clinical and guidance staff should explore additional motivational ways to work with the Corrective Reading Readiness students since their overall mean gain score on the CAT Letters and Sounds subtest was the only mean gain not meeting the program's criterion for success.

NEW YORK CITY PUBLIC SCHOOLS
BUREAU OF NONPUBLIC SCHOOL REIMBURSABLE SERVICES
E.C.I.A. CHAPTER I CLINICAL AND GUIDANCE SERVICE

INITIAL SCREENING FORM FOR STUDENTS REFERRED
FOR CLINICAL AND GUIDANCE SERVICES
(To be completed by Clinical and Guidance Staff)

Date _____

SCHOOL _____ DISTRICT _____ CODE _____

REFERRED BY _____
(Please identify - i.e., Chapter I - Reading, Math, Reading S.C., E.S.L.)

NAME OF CHILD _____ BIRTH DATE _____

GRADE _____ TEACHER _____ ROOM _____

ENROLLED IN CHAPTER I READING _____ MATH _____ READ. S.C. _____ E.S.L. _____

ADDRESS _____ PARENTS
TELEPHONE (home) _____ (work) _____

CHILD LIVES WITH: BOTH PARENTS _____ FATHER _____ MOTHER _____ OTHER (SPECIFY) _____

FATHER'S NAME _____ MOTHER'S NAME _____
(First name and maiden)

NUMBER OF SIBLINGS _____ POSITION IN FAMILY: _____
oldest 2nd 3rd 4th etc.

BIRTH PLACE _____ LANGUAGE SPOKEN AT HOME _____

REASON FOR REFERRAL: (Check all that apply)

- | | |
|--|--|
| 1. ACTING OUT BEHAVIOR _____ | 6. PROBLEMS RELATING TO PEERS/ADULTS _____ |
| 2. SHY-WITHDRAWN _____ | 7. FAMILY PROBLEMS _____ |
| 3. UNDERACHIEVEMENT _____ | 8. HEALTH PROBLEMS _____ |
| 4. SUSPECTED EDUCATIONAL
HANDICAP _____ | 9. OTHER - SPECIFY _____ |
| 5. POSSIBLE CHANGE IN
EDUCATIONAL PROGRAM _____ | |

SCHOOL ATTENDANCE PATTERN:

EXCELLENT
Few Absences

GOOD
Average for Grade

POOR
Above Average
and/or Many
Unexplained Absences

HAS CHILD BEEN HELD BACK? _____ IF SO, IN WHAT GRADE _____

BEHAVIOR CHECKLIST

(To be completed by the referring teacher.)

INSTRUCTIONS TO THE TEACHER: For each item, please circle the number which best describes the behavior of the referred student. Be sure to complete all 25 items.

	NEVER	SELDOM	HALF OF THE TIME	OFTEN	ALWAYS
1. Has difficulty following directions (e.g., requires repeated explanations).....	0	1	2	3	4
2. Has difficulty working independently (e.g., requires much teacher monitoring).....	0	1	2	3	4
3. Is easily distracted and restless (e.g., has difficulty attending for more than short periods, fidgety in seat).....	0	1	2	3	4
4. Has disorganized work habits (e.g., comes unprepared to class, loses assignments, hands work in late, messy desk).....	0	1	2	3	4
5. Seems not to care about school-work (e.g., casual attitude towards grades, doesn't turn in homework, often absent).....	0	1	2	3	4
6. Is reluctant to participate in school activities (e.g., needs encouragement to become involved)	0	1	2	3	4
7. Fails to complete homework and seatwork.....	0	1	2	3	4
8. Is dependent on others (e.g., seeks constant reassurance of correctness of actions, clings to adults, lacks initiative).....	0	1	2	3	4
9. Has little self-confidence (e.g., is easily discouraged, feels "I can't do it," belittles self)	0	1	2	3	4
10. Is sullen and unhappy (e.g., rarely smiles, humorless, lethargic, shows little pleasure)	0	1	2	3	4
11. Is easily frustrated (e.g., gives up quickly, cries or sulks easily, can't wait turn)	0	1	2	3	4
12. Is a nervous child (e.g., fidgety and restless; has nervous habits such as nailbiting, stuttering, tics; many physical complaints).....	0	1	2	3	4

	NEVER	SELDOM	HALF OF THE TIME	OFTEN	ALWAYS
13. Is a fearful child (e.g., readily withdraws from situations where he/she could be hurt, embarrassed or made tease).....	0	1	2	3	4
14. Is disoriented (e.g., "specoy," easily confused, glazed expression, falls asleep in class).....	0	1	2	3	4
15. Complaints of not feeling well (e.g., stomachaches, headaches, nausea, dizziness).....	0	1	2	3	4
16. Is oversensitive (e.g., feelings are easily hurt, cries easily, can't accept criti- cism, misinterprets statements).....	0	1	2	3	4
17. Is careless regarding physical appearance.....	0	1	2	3	4
18. Doesn't get along with peers (e.g., "turns off" or annoys peers, is rejected by others, has diffi- culty keeping friends).....	0	1	2	3	4
19. Withdraws from peers (e.g., plays or works alone, has difficulty expressing feelings, has few friends).....	0	1	2	3	4
20. Is physically or verbally aggressive toward peers (e.g., hits or pushes others, tends to bully or dom- inate).....	0	1	2	3	4
21. Is picked on or teased by others	0	1	2	3	4
22. Is easily led by others (e.g., is a follower).....	0	1	2	3	4
23. Tries to be the center of at- tention (e.g., clowns around, makes noises, "wisecracks", distracts others).....	0	1	2	3	4
24. Has temper outbursts (e.g., easily angered, has dif- ficulty controlling temper, volatile).....	0	1	2	3	4
25. Is uncooperative with adults (e.g., refuses to do what is asked, is defiant and argumen- tative, talks back, "I won't")	0	1	2	3	4

(OVER)

COMPLETED BY:

Signature: _____

Title: _____

Date: _____

COMMENTS:

APPENDIX B

Brief Description of Chapter I Nonpublic School Reimbursable 1985-86 Programs

CORRECTIVE READING PROGRAM

The Chapter I Corrective Reading Program provides supplemental individualized instruction in reading and writing skills to Chapter I-eligible students who score below grade level in reading on standardized tests. The program's goal is to enable students to reach grade level and to perform well in their regular classrooms. The program uses a modified diagnostic-prescriptive approach. During 1985-86, program staff included one coordinator, two field supervisors, and 173 teachers who worked with 10,832 students in grades one through twelve at 238 schools.

READING SKILLS CENTER PROGRAM

The Chapter I Reading Skills Center Program provides supplemental individualized instruction in reading and writing skills to Chapter I-eligible students who score below grade level in reading on standardized tests. The program's goal is to enable students to reach grade level and to perform well in their regular classrooms. The program uses a modified diagnostic-prescriptive approach. One coordinator and 16 teachers worked with 510 students at nine schools.

CORRECTIVE MATHEMATICS PROGRAM

The Chapter I Corrective Mathematics Program provides remedial mathematics instruction to Chapter I students in grades one through twelve with diagnosed deficiencies in mathematics. The main goals of the program are to alleviate deficiencies in mathematical concepts, computation, and problem solving and to assist students in applying these concepts and skills in everyday life. One coordinator, two field supervisors, and 129 teachers served 8,825 students in 186 nonpublic schools.

ENGLISH AS A SECOND LANGUAGE (E.S.L.) PROGRAM

The Chapter I E.S.L. Program provides intensive English language instruction to Chapter I students whose first

APPENDIX B (Cont'd)

language is not English. The main goal of the program is to provide students with opportunities to use oral and written English in situations similar to those they might encounter in everyday life. The program in 1985-86 was staffed with one coordinator, two field supervisors, and 80 teachers. They provided services to 4,305 students in 111 nonpublic schools.

CLINICAL AND GUIDANCE PROGRAM

The Chapter I Clinical and Guidance Program consists of diagnostic services and counseling support for nonpublic school students enrolled in Chapter I remedial programs. Chapter I teachers refer students who show signs of social or emotional problems thought to inhibit academic performance. The Clinical and Guidance Program is seen as a service helping students to overcome obstacles standing in the way of better academic achievement. Program staff consisted of two coordinators, three field supervisors, 123 guidance counselors, 57 clinicians, and 23 social workers serving 533 students in 201 schools.