DOCUMENT RESUME

ED 207 028 CS 006 278

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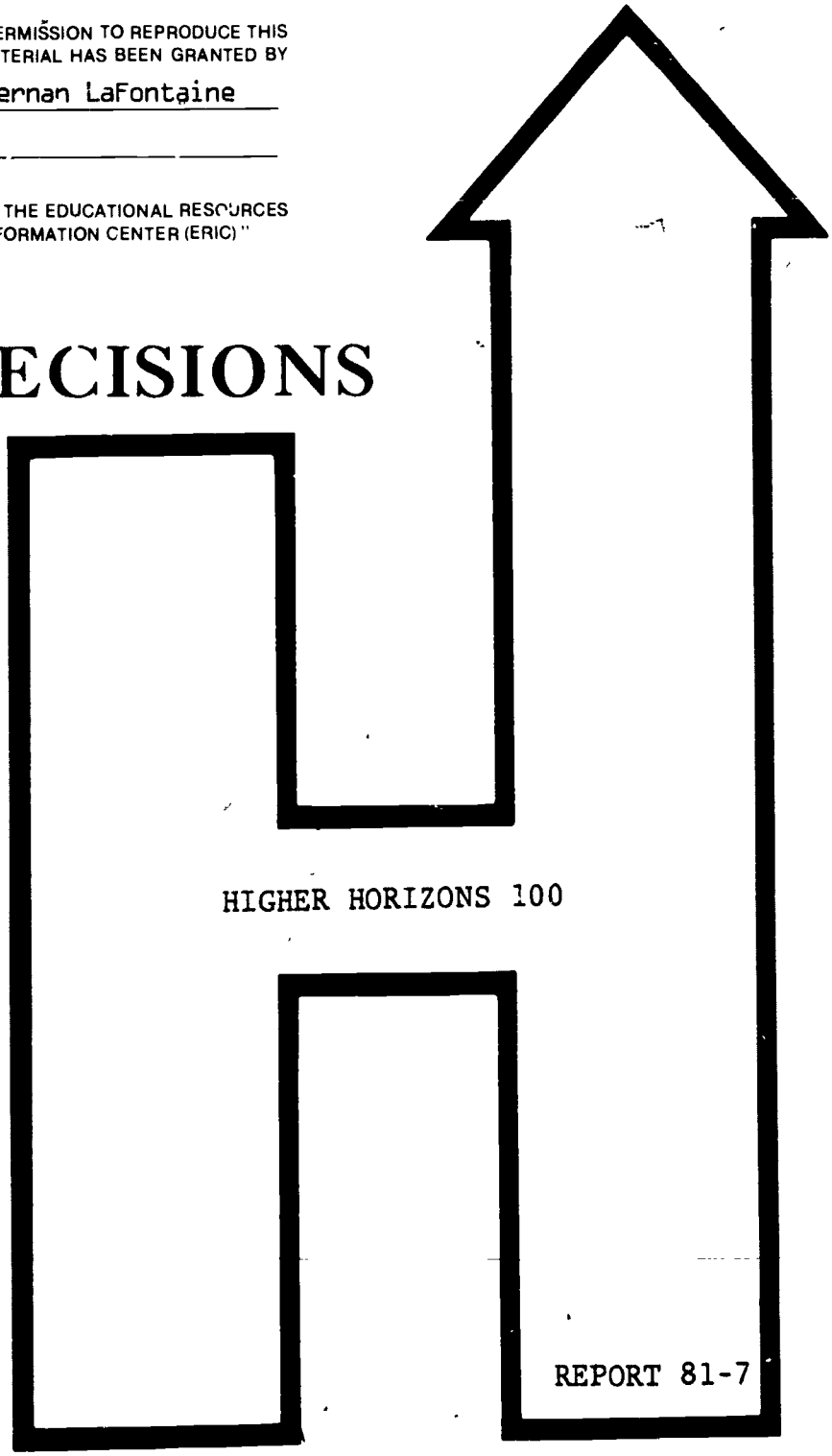
TITLE Higher Horizons 100, 1980-81 Compensatory Program Evaluation. Report 81-7.
INSTITUTION Hartford Public Schools, Conn.
PUB DATE Jul 81
NOTE 36p.; For related documents see ED 177 516 and ED 196 974.

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Basic Skills; Counseling Services; Cultural Enrichment; Disadvantaged Youth; High Schools; *Improvement Programs; Integrated Activities; *Language Arts; Mathematics; Middle Schools; Program Descriptions; *Reading Improvement; Secondary Education; Student Attitudes; *Team Teaching
IDENTIFIERS Connecticut (Hartford); *Higher Horizons Program

ABSTRACT

Higher Horizons (HH) 100 is a program providing groups of 100 underachieving secondary school students in Hartford, Connecticut, with an integrated program of academic, cultural, and counseling services designed to develop and improve their basic skills in language and mathematics, self-concept, and adjustment to school. The eight small cluster settings allow intensive counseling, individualized instruction, and integrated cultural and educational activities, as well as a series of student run and staff directed projects. In the project's sixteenth year, HH 100 operates a ninth grade team at each of Hartford's high schools, a tenth grade team at one high school, and two teams at each of the middle schools, with funding from Title I. Each team is staffed by five or six teachers, a counselor, and a project aid. When recent fall-to-spring Metropolitan Achievement Test data were analyzed by team and by grade level, all gains were highly significant, exceeding the projected standard. The upgraded percentile gain standard was reached by all but one team in reading, one grade level with a team in mathematics, and both grade levels within one team in language arts. At least 90% attendance was attained by all teams. Students reported a realistic and positive attitude toward themselves and school, on a self-rating measure similar to those used in previous years. (Author/HTH)

DATA FOR DECISIONS



HIGHER HORIZONS 100

REPORT 81-7

CS006278

ARTFORD PUBLIC SCHOOLS 2
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HIGHER HORIZONS 100

- 1980-81 Compensatory Program Evaluation -

Report 81-7

Evaluation, Research, & Testing Office
Hartford Public Schools
249 High Street
Hartford, Connecticut 06103

July 1981

HIGHER HORIZONS 100

- 1980 - 1981 Compensatory Program Evaluation -

Services Provided

For the sixteenth consecutive year, Higher Horizons 100 (HH100) again provided groups of 100 underachieving secondary school students with an intergrated program of academic, cultural, and counseling services. Throughout these years the goals of the program have remained the same; to develop and improve the basic academic skills of language and mathematics, self-concept, and school adjustment for enrolled students.

Small classes provided in cluster settings, intensive counseling, individualized instruction, civic and educational trips, guest speakers, and a series of student-run activities are articulated so as to foster a basic philosophy which permeates the total program. Of the eight clusters which are supported with Title I funding, three serve ninth graders at each of the city's high schools, one is an HPHS tenth grade cluster and two serve each of the seventh and eighth grade middle schools. Clusters are staffed by a team of five or six teachers, a counselor, and a project aide. Title I funds also provide for limited supplies, a team leader differential for inter-team liaison services, and cultural activities although in more recent years trips and other activities have been largely supported by gifts from the business community and by funds raised by the youngsters.

Program Accomplishments

Because an important Higher Horizons concept is to help HH100 youngsters help themselves, several accomplishments in this area were reported. In order to involve students, parents and staff in the continuing operation of the program, a series of fund-raising strategies to include candy sales and Thanksgiving raffles were conducted by all teams. Proceeds were used to support field trips and team activities planned and operated for and by the youngsters. In addition, three teams also conducted

end-of-year student/parent banquets where the teaching staff recognized students not only for their academic successes but for progress in other areas as well.

The liaison reported that local business contributed both staff and money to the program. Contributors included Connecticut Bank and Trust Company, Connecticut Mutual Insurance Co., Connecticut General Insurance Co., Southern New England Telephone Company, Aetna Life and Casualty, Travelers Insurance Company, The Hartford Insurance Co., Hartford Steam Boiler Inspection & Insurance Co., Hartford National Bank, Savitts Jewelers, and the Phoenix Insurance Company.

It was reported that the eight teams continued to sponsor on-going speaker programs in an effort to broaden the career and educational expectations of the students. Speakers were obtained from private industry, the media, politics, the military and government agencies and were scheduled on a regular basis throughout the school year. Note here that these and other activities were directly tied to the overall instructional program.

To foster involvement and spirit, HH100 clusters also conducted a variety of extra-curricular activities. These included intra-mural volleyball, softball and basketball games; excursions to local roller skating rinks and bowling alleys; and a reception to the graduating HH100 alumni. Activities were conducted by staff members who worked on their own time with students and parents in the clusters. These events and trips to New York, area colleges, business sites, and points of historic importance were also course-related and thus were cited as an integral part of the program.

In addition to the activities and field trips, HH100 clusters also worked to actively involve parents in their child's program. Parents were encouraged to serve on local PACs to advise and oversee the functioning of the program, to work with the district PAC, and to become knowledgeable about the HH100 program. Parents also served as chaperones on class excursions and it was reported that these involvements contributed largely to overall program

success.

In order to examine long range program effects it was reported that a systematic longitudinal study of HH100 youngsters is being initiated. Using computer-stored MAT data it is expected that test results can be compared and evaluated at the end of a student's senior year. It is also anticipated that youngsters can be tracked in the HH100 program from grades seven through high school graduation. As part of this follow-up study, the liaison noted that graduating seniors would be asked to fill out a questionnaire in anticipation that student perceptions would give some idea of the influence which HH100 exerted on these students during their post-HH100 high school career.

Problem Areas

In the 1979-80 evaluation (Report 80-7), it was reported that problems with the level of supplementary staffing at Quirk had been partially resolved by the assignment of a creative writing teacher on a half-time basis. This position is being continued during the 1980-1981 school year although an additional .5 position is still needed to bring the staffing level up to regulatory standard.

The problem of funding the Quirk head counselor under Title I has been rectified and this position has been transferred to the general budget.

Even so, counselor service problems continue to persist since it was reported that counselors in both middle schools continue to service HH100 and mainstream students. This was reported as having been a persistent problem.

Evaluation

The HH 100 evaluation was intended to provide answers to two general questions:

1. Were services provided in accord with the funding proposal?
2. To what extent were project objectives met?

Question 1. Were services provided in accord with the funding proposal?

The team liaison's final report and data coding sheets were examined. In addition, correspondence and conversations with the liaison were considered. On the basis of this information it would appear that HH 100 operated substantially in accord with the funding proposal over the course of the school year with the exception of the middle school staffing problems which have already been reported. Note that both Fox Middle School counselors reported that the majority of their time was spent with non-HH 100 students despite the fact that the funding of 1 full position should result in at least the equivalent of 1 position's services split between the teams.

In the 1978-79 evaluation, it was first reported that substantial numbers of HH 100 youngsters were receiving a third year of services, particularly at HPHS and at WHS, and that two years of service was the general middle school rule. The liaison reported that this pattern has persisted for two reasons. At the middle school level, and at Fox Middle where the program is ungraded, youngsters are typically committed to the program for a two year period of time. At the high school levels, youngsters are generally continued if their tested skill levels have not reached the 35%ile, although these students are included on a lower priority basis. How this priority criterion was actually used could not be determined on the basis of the data at hand. A comparison of 1979-80 and 1980-81 enrollment patterns are shown in Table 1. Note here the trend for HH 100 to provide multi-year rather than single year services.

Table 1

Comparison of Enrollments by Year and Team, 1979-80 and 1980-81

Team	1st Year 79-80	1st Year 80-81	2nd Year 79-80	2nd Year 80-81	3rd Year 79-80	3rd Year 80-81	4th Year 79-80	4th Year 80-81	Other
HPHS-10	63	36	21	23	3	8	13	13	0
HPHS-9	58	43	4	18	21	41	2	0	0
WHS-9	55	47	2	6	35	45	0	0	0
BHS-9	87	90	0	0	0	0	0	0	0
Fox 7/8D	47	57	44	42	0	0	0	0	0
Fox 7/8P	57	59	38	0	0	0	0	0	0
Quirk-7	90	90	0	0	0	0	0	0	0
Quirk-8	23	18	68	62	0	0	0	0	0
Total	480	440	177	151	59	94	15	13	1
Total %	65.6	63.0	24.3	21.6	8.0	13.5	2.0	2.0	-

Question 2. To what extent were project objectives met?

The proposal listed three objectives:

Objective 1: Students will on the average make educationally significant gains of at least 6 percentile points in reading and in mathematics.

Objective 2: Students will on the average make a better percentage of attendance for the academic year than that of the hosting school grade level.

Objective 3: Students will acquire a realistic and positive attitude toward themselves and school.

Objective 1: Students will on the average make educationally significant gains of at least three percentile points in reading and in mathematics.

Objectives were assessed using several procedures. For all HH 100 teams, to include grade 10 for the first time, reading and

mathematics skill gains were measured by fall to spring testing with the 1978 edition of the Metropolitan Achievement Tests (MAT), given at the appropriate levels. In addition, since the teams also worked in other language areas, the MAT Language scores were also examined. Mean standard scores were analyzed using a t-test of related measures at the .05 level of confidence and were also converted to relative percentile placements so that a weighted normal curve equivalent gain could be calculated. While the MAT or Comprehensive Tests of Basic Skills (CTBS) scores which were collected during the previous spring and used as an admission criterion were also collected, a change in MAT editions from the older 1970 version at grades 7 - 9, and the use of the new 1978 MAT at all grade levels, 7 - 10, made a separate analysis of these data impractical. This analysis had been used to determine whether there were important differences between spring to spring and fall to spring testing in the past. It is planned that this analysis will be made next year, since HH 100 teams have consistently reported that since spring test data were often not available, fall pretesting was required by the teams. Since the new 1981 city-wide testing make-up procedures are expected to fill many of the missing data gaps, this analysis is expected to be of particular interest to the teams.

While the MAT test data are reported in several tables which follow, an explanation of the table headings may be in order.

- Teams and grade levels. MAT scores are reported by teams and by MAT sub-test; i.e., Reading, Math, and Language.
- N refers to the number of students who had both pre and post test scores on a particular subtest. While each team provided make-up testing, it is not unusual for an N to be lower than the actual team enrollment nor is it unusual for the N to differ from subtest to subtest since reading and math tests are usually given on separate days.
- Standard scores (SS). Standard scores represent a lineal score distribution scale which enables one to equate gains at any point on the scale. Unlike grade equivalent

(GE) increments, standard score gains of, for example, from 10 to 20 can be equated with gains from 90 to 100 since both represent the same relative amount of change. With the old GE system, a youngster who tested near the top of a reading test might go "up" 4 or 5 months by correctly completing only 1 or 2 questions, while another youngster who tested in the middle of the same test scale could complete the same additional number of questions but with no apparent change in GE score.

- The standard deviation (SD) is a measure of score distribution or variability. The higher the SD, the more the scores are spread out. Standard deviations are used to look at the scores pre and post so as to help determine if the group scores spread out, tightened up, or remained about the same.
- The difference (Dif) between pre and post test scores is determined by subtesting the average, or mean, pre-test score from the average post test score.
- To determine whether the difference between pre and post test scores has any educational meaning, a statistical technique called the t-test is used. A high t indicates that the change was in all probability a real one and not just a fluke of fate, while a low t indicates that any score difference should be taken with a grain of salt.
- A reported significance (Sig) level is really an estimate of probability. A reported significance level of .01 means that the difference is probably real in 99 out of 100 cases, while a reported .05 level represents a probability of 95 out of 100. Either level of significance is statistical evidence that the reported change is probably real. If the change is non-significant (NS) any apparent change should be viewed with caution.
- Percentiles (%iles). Percentile scores are used to show a relationship between student test scores and their norm group on a given test. The concept of percentile

gain is a simple one. If a percentile score shows the place where a youngster stands in relationship to his peers, then any percentile gain is good, while the maintenance of a percentile standing shows that the youngster is holding his own. Unfortunately, percentile gains like grade equivalent (GE) gains cannot be equated at different points on a scale. To equate gains from grade to grade and on different parts of the percentile scale, a Normal Curve Equivalent (NCE) scale is used.

- Normal Curve Equivalent (NCE). NCEs, like standard scores, represent units on an equi-distant scale. NCEs can be averaged and weighted so that a composite gain level for a program covering several grade levels and using different test levels can be computed. A weighted gain of 7 NCEs is considered a very conservative estimate of educationally significant gain. This is the level used by the developers of the Title I data reporting system. Other researchers, however, report that gains of 5 or more NCEs are also educationally significant.

Tables 2 through 4 show comparative fall to spring Reading, Mathematics, and Language MAT subtest scores for each of the eight HH 100 teams and for the program as a whole. Since some teams did not use the Language test in the fall, for these teams no spring data are reported. Note here that all mean differences were significant at the .01 level, thus reaching and exceeding the stated level of confidence.

Table 2

Comparison of Mean Metropolitan Reading Standard Score Changes by Team and Grade, Fall 1980 - Spring 1981

Team	N	Pre Read	SD	Post Read	SD	Dif	t	Sig
HPHS-9	89	751.3	45.4	787.7	55.1	36.3	10.7	.01
HPHS-10	75	736.3	80.9	767.3	63.7	31.0	4.1	.01
WHS-9	92	740.2	46.2	765.7	45.1	22.5	6.7	.01
BHS-9	84	699.1	56.0	739.9	57.5	40.8	10.9	.01
Fox 7/8D								
Grade 7	54	695.1	44.2	726.0	60.2	30.9	5.1	.01
Grade 8	41	713.4	37.0	741.0	41.9	27.6	5.1	.01
Fox 7/8P								
Grade 7	30	680.2	48.8	729.5	35.7	49.3	7.3	.01
Grade 8	40	713.9	37.8	745.9	44.1	32.0	5.4	.01
Quirk-7	81	659.1	55.9	706.1	45.8	47.0	9.5	.01
Quirk-8	73	715.4	51.5	754.5	52.9	39.1	10.6	.01
Total	685	712.6	59.7	749.2	56.6	36.6	23.1	.01

Table 3

Comparison of Mean Metropolitan Mathematics Standard Score by Team and Grade, Fall 1980 - Spring 1981

Team	N	Pre Math	SD	Post Math	SD	Dif	t	Sig
HPHS-9	88	731.5	83.2	782.3	58.0	50.8	5.9	.01
HPHS-10	76	729.6	58.1	763.4	53.7	33.8	8.5	.01
WHS-9	92	719.5	47.5	747.1	48.2	27.6	6.4	.01
BHS-9	86	703.3	52.6	730.0	58.7	29.7	6.4	.01
Fox 7/8D								
Grade 7	50	676.6	49.9	719.2	50.6	42.6	6.5	.01
Grade 8	41	683.3	38.3	720.9	33.6	37.6	6.5	.01
Fox 7/8P								
Grade 7	30	670.4	49.6	716.7	45.4	46.3	5.7	.01
Grade 8	30	696.8	43.0	728.6	36.8	31.8	6.4	.01
Quirk-7	80	636.9	56.7	716.5	56.1	79.6	12.7	.01
Quirk-8	73	693.1	92.8	747.5	46.9	54.4	5.9	.01
Total	686	696.1	68.1	739.4	61.6	43.3	17.9	.01

Table 4
Comparison of Mean Metropolitan Language Standard Scores by Team and Grade, Fall 1980 - Spring 1981

Team	N	Pre Lang	SD	Post Lang	SD	Dif	t	Sig
HPHS-9	0							
HPHS-10	76	717.7	89.7	758.4	78.2	40.7	5.6	.01
WHS-9	0							
BHS-9	86	690.6	60.3	751.3	61.2	60.7	11.6	.01
Fox 7/8D								
Grade 7	50	682.6	58.2	715.6	63.6	33.0	4.8	.01
Grade 8	41	698.6	57.2	728.5	52.5	29.9	5.1	.01
Fox 7/8P								
Grade 7	30	661.6	48.0	735.5	57.6	73.9	8.4	.01
Grade 8	40	692.1	35.1	755.4	47.8	63.3	10.1	.01
Quirk-7	79	645.2	56.8	702.1	56.3	56.9	11.1	.01
Quirk-8	73	706.9	80.1	769.0	70.4	62.1	7.6	.01
Total	505	688.1	68.6	740.1	67.7	52.0	20.7	.01

Since the written objective stated that HH 100 students would on the average make at least 6%ile point gains in reading and in mathematics, it was necessary to compute average pre and post standard MAT scores by grade, equate these scores with percentile placements using fall and spring test norm data provided by the publisher, and then convert these percentiles to the linear Normal Curve Equivalent (NCE) scale. Note here that while any grade level percentile gains can be considered salutary, an overall measure of gain is needed for the project as a whole. This gain level has been calculated in terms of NCEs and is reported together with NCE changes for each of the 8 HH 100 teams by grade. These data are shown in tables 5 - 7 which follow.

Table 5

Comparison of Mean Reading Percentile Placement and NCE Changes by Team and Grade, Fall 1980 - Spring 1981

Team & Grade	N	Pre Test %ile	Pre Test NCE	Post Test %ile	Post Test NCE	Dif %ile	Dif NCE
HPHS-9	89	38	43.6	48	48.9	10	5.3
HPHS-10	75	23	34.4	26	36.5	3	2.1
WHS-9	92	32	40.1	38	43.6	6	3.5
BHS-9	84	20	32.3	26	36.5	6	4.2
FMS 7/8D Grade 7	50	28	37.7	36	42.5	8	4.8
Grade 8	41	28	37.7	34	41.3	6	3.6
FMS 7/8P Grade 7	30	23	34.4	38	43.6	15	9.2
Grade 8	40	28	37.7	36	42.5	8	4.8
Quirk-7	81	16	29.1	28	37.7	12	8.6
Quirk-8	73	28	37.7	40	44.7	12	7.0
Weighted Total	655						5.1

Table 6

Comparison of Mean Math Percentile Placement and NCE Changes by Team and Grade, Fall 1980 - Spring 1981

Team & Grade	N	Pre Test %ile	Pre Test NCE	Post Test %ile	Post Test NCE	Dif %ile	Dif NCE
HPHS-9	88	38	43.6	54	52.1	16	8.5
HPHS-10	76	32	40.1	38	43.6	6	3.5
WHS-9	92	34	41.3	40	44.7	6	3.4
BHS-9	86	28	37.7	34	41.3	6	3.6
FMS 7/8D Grade 7	50	40	44.7	44	46.8	4	2.1
Grade 8	41	26	36.5	44	46.8	18	10.3
FMS 7/8P Grade 7	30	38	44.7	44	46.8	6	2.1
Grade 8	40	32	40.1	48	48.9	16	8.8
Quirk-7	80	26	36.5	44	46.8	18	10.3
Quirk-8	73	30	39.0	56	53.2	26	14.2
Weighted Total	656						6.8

Table 7

Comparison of Mean Language Percentile Placement and NCE Changes by Team and Grade, Fall 1980 - Spring 1981

Team & Grade	N	Pre Test %ile	Pre Test NCE	Post Test %ile	Post Test NCE	Dif %ile	Dif NCE
HPHS-9							
HPHS-10	76	28	37.7	34	41.3	6	3.6
WHS-9							
BHS-9	86	26	36.5	40	44.7	14	8.2
FMS 7/8D							
Grade 7	50	42	45.8	40	45.8	0	0
Grade 8	41	34	41.3	36	42.5	2	1.2
FMS 7/8P							
Grade 7	30	36	42.5	48	48.9	12	6.4
Grade 8	40	32	40.1	46	47.9	14	7.8
Quirk-7	79	32	40.1	40	44.7	8	4.6
Quirk-8	73	36	42.5	50	50.0	14	7.5
Weighted Total	475						5.1

While fall to spring test data showed highly significant mean gain patterns exceeding the criterion standard, and for each team and grade level within each team, the analysis of mean percentile placement and NCE change was also impressive. Here the 6 percentile standard, which had been upgraded from the three percentile gain standard used in 1979-80, was met in all but one instance in Reading and in Math, and by all but two teams in Language. In Reading, HPHS-10 gained only 3 percentile points while in Math and Language, Fox 7D produced 4 and no mean percentile gains, respectively. The eighth grade of the same team gained only two percentile points in Language.

The Language test was not taken by the HPHS-9 and WHS-9 teams.

When the same percentiles were converted to NCEs and the gains assessed, program changes seemed even more impressive. While team gains ranged from 0 to 14 percentile points, one must remember that NCEs represent an equi-distant scale, whereas percentiles tend to spread out at the scale ends and are "scrunched" together in the middle. Since the research literature indicates that any NCE gain is a salutary one, and that mean gains of five or more NCEs probably represent substantial changes which are due largely to program impact, weighted NCEs ranging from 5.1 in Reading and Language to 5.8 in Math which were reported for the project as a whole are good indicators of project success. Since highly significant mean gains were also reported for all teams, at each grade level and on all subtests, and since these same groupings met or exceeded the 6 percentile standard in 24 out of 28 analyses, the objective was assuredly attained.

Objective 2: Students...will achieve...a better percentage of attendance...than that of the hosting school grade level.

Since a static percentage criterion would work against teams in schools where good attendance is stressed, attendance standards were developed for each of the secondary schools. These standards were updated on the basis of the 1978-79 evaluation report and are shown together with team attainments in Table 8. Although the objective specified that team percentages of attendance would be compared with those of the hosting school, neither current end-of-year nor interim percentages for the last two years were available, so the listed criterion were used instead. Note that in all cases where data were available, team gains exceeded the established goal. Thus it would seem that the objective was attained and the standards exceeded by the teams and for the project as a whole.

Table 8

Comparison of HH 100 Attendance Percentages with School and Grade Criterion, School Year 1980 - 1981

Team	Desired Percentage	Attendance	Gain Dif.
HPHS-9	90	90.6	.6
HPHS-10	90	94.6	4.6
WHS-9	90	94.5	4.5
BHS-9	90		
Fox 7/8D	92	92.6	.6
Fox 7/8P	92	94.8	4.8
Quirk-7	90	90.6	.6
Quirk-8	90	93.4	3.4
Total	90.5	92.8	2.7

Objective 3: Students...will acquire a realistic and positive attitude toward themselves and school.

To measure this objective a Pupil Rating Form (PRF) was given to all HH 100 students at the end of the school year. This form, which has been used by the teams since 1971, addressed three areas. One section contained 15 self-rating items which addressed areas where HH 100 might have helped the student during the school year while a second section asked the youngsters to assess their personal and scholastic growth in class, following through on assignments, and getting along with other youngsters. A third area contained four open-ended questions which asked students to identify the part of HH 100 which provided the most and least help and to list what they like best and disliked most about the program. Objective questionnaire data were coded on data processing sheets and aggregated for the program as a whole while the fill-ins were analyzed, grouped by category, and narratively interpreted. Objective data are shown in Table 9 with the narrative analysis following. Note here that ratings

were almost identical to those reported for the previous year.

Table 9

Analysis of HH 100 Team Program Rating Form Responses, Spring 1981

	Much	Some	None	Some Adverse Effects	Cannot Judge	N
Do you think Higher Horizons has helped you so far this year to:						
1. Improve your reading ability?		4.3		1.0		672
2. Improve your study habits?		4.2				674
3. Improve your attitude toward learning?		4.3				673
4. Improve your classroom behavior?		4.1				673
5. Improve your out-of-class behavior?		3.8				674
6. Improve your getting along with your teachers?		4.2				674
7. Learn more about yourself?		4.1				672
8. Get specific help with your school work.		4.1				672
9. Get help in working out your personal problems?			3.4			671
10. Work toward a high school diploma?		4.3				673

	Much	Some	None	Some Adverse Effects	Cannot Judge	N
11. Look forward to an education training beyond high school?		4.1				674
12. Identify some talents and interests which are other than academic?		3.8				672
13. Expect to achieve at a higher level in school?		3.7				670
14. Increased your parents' interest in your school?		4.1				673
15. Improved your parents' interest in your school work?		4.1				673

How would you rate yourself?

	All the time	Most of the time	Only some times	Never	Cannot Judge	
16. I do my homework.		3.5				674
17. I do not disturb others in the class when they are working.		3.6				674
18. I can easily explain my ideas to others.		3.8				674
19. I take part in class discussions.		3.7				674

		All the time	Most of the time	Only some times	Never	Cannot Judge	N
20.	I want to learn and to improve myself.	4.6					669
21.	When I come to school I am ready for the lesson and the tests of the day.		4.0				672
22.	I feel I am doing better in classwork.		4.2				673
23.	I get along with the other students in my class.		4.4				673
24.	I finish my work on time.		4.1				671
25.	I have confidence in myself.		4.4				669
26.	I do the very best I can.		4.3				673
27.	I do my work without having to be told to do it.		4.1				671

As can be seen from the mean pupil ratings, in virtually every case the youngsters reported that Higher Horizons had helped them to some extent in each of the areas queried. Further, the students also reported that school and inter-student activities were positive most of the time, that they wanted to learn and improve themselves virtually all of the time, and that they were getting along with other students and doing the best that they could most of the time.

While objective pupil ratings could be analyzed by computer, the analysis of the open-ended question data required that a

different procedure be used. Here comments were tallied, categorized, and narratively reported. Since several of the teams administered questionnaires anonymously, it was not possible to marry-up test and reported data by team or by grade level. This problem did not seem to have an impact on the overall presentation of the results.

In response to the question, "What part of Higher Horizons do you think has helped you most?", respondents indicated that the various subjects and teachers had helped them the most. Students also reported that subjects and trips were liked most about the Higher Horizons program. These responses mirrored those of the previous year and seemed to reflect the academic focus of the program.

When students were asked what they liked least about Higher Horizons, most of the responses were focused on homework or individual subject preferences. Students also suggested the need for more communications with teachers, study halls, less rigid rules, and more student involvement. The majority of commenters indicated no suggestions for improvement and nothing really disliked.

On the basis of these student self-reports, it appeared that HH 100 students were generally supportive to the program; that they viewed HH 100 as having been of help in many ways, and that they seemed to exhibit a positive perception of themselves in relation to schoolwork, school, and their academic future. Thus the objective can be reported as having been attained.

Conclusions and Recommendations

As the preceding sections of the report points out, all objectives were attained by the HH 100 youngsters. When fall to spring MAT standard scores were examined by team and by grade level, all gains were highly significant thus exceeding the .05 criterion level. When these same scores were converted to relative percentile placements, the upgraded standard of a 6%ile point gain was met by virtually all teams and grade levels.

In reading, only HPHS-10 failed to meet the gain standard while Fox 7/8D grade 7 did not meet the standard in mathematics nor did both grade levels of the same team meet the standard in language. All teams and all grade levels produced percentile point gains which in themselves were evidence of improvement.

When fall to spring MAT scores were converted to relative percentile scores, 24 out of the 28 analyses showed at least a 5 NCE gain. When weighted gain totals were calculated for the overall program, totals of 5.1 NCEs were reported in reading and language and 6.8 in mathematics. These weighted gains exceeded and in each of the three tested areas the research-set benchmark of 5 NCEs so as to indicate that educationally significant gains had taken place.

In keeping with previous year's ratings, pupil reactions to the program seem positive, realistic, and generally attuned to the academic impact of the program.

Although host school attendance percentages were not available, all team attendance averages exceeded 90% with a program average of 92.8 reported with gains above the 90% standard ranging from .6 to 4.8 percentile points.

On the basis of the foregoing, a series of updated recommendations seem in order.

1. Given the recommendation which was made last year, both the evaluation office and the project liaison have initiated steps to develop a systematic longitudinal evaluation of the program. As was noted in the Strengths section of this report, the liaison plans to conduct a longitudinal study of former Higher Horizons students during the remaining time that they are in high school. Further, now that the district is using the 1978 edition of the Metropolitan Achievement Test in grades 2 - 8, with a possible city-wide extension to grades 9 and 10 being considered, it may be possible to track the youngsters on the basis of MAT test scores. These scores, together with other

indications of student grades such as grade point averages, accomplishments in school and non-school activities, and movement from academic level to level should be examined. While the plans made by the HPHS team leader are to be applauded, further planning is still needed and all teams should be brought into the planning process. As was noted last year, the study should also be designed to provide a base for looking at post graduation accomplishments and should probably be started at the middle school levels as well. This is another reason for total team involvement.

2. Last year, the issue of how much is too much testing was raised in the evaluation. This issue was based upon similarities between spring and fall MAT test results. In 1980-81, the question could not be addressed since different editions of the MAT were used each year. Thus, fall to spring testing with the new 1978 MAT edition was an appropriate action on the part of the teams. Since the testing office has initiated plans to increase the number of youngsters tested, and since test scores were returned to the schools before the end of the academic year, scores were available for summer planning. Thus, the issue of spring-to-spring vs. fall-to-spring testing should be examined carefully next year. If appropriate test data are available on the youngsters, the possibility of cutting out fall testing should again be considered by the teams.

3. While this is not a team faulting, for the second consecutive year it was not possible to look at HH 100 team attendance accomplishments in comparison with host school levels. Up to date school attendance percentages were simply not available. Even so, since attendance standards can be expected to vary, the current attendance scale is a rigorous one and should

be used at least until more recent school-wide data are available. These are expected later during the year.

4. No problems were submitted with respect to initial student enrollments or to student attrition. The 754 youngsters served by the program represented about 94% of the 800 enrollment goal, and represented an increase by 27 students over the 727 enrolled last year. While this represents a substantial improvement, teams should continue to work toward full enrollments even if this means selecting from 106 to 115 eligible candidates for each team during the year. These numbers would allow normal student attrition to reduce enrollments to the 100 students per team target level. Since this level of "overbooking" is probably not detrimental to the program nor is there evidence that "underbooking" increases the quality of instruction, it must again be stressed that the latter certainly reduces the number of available student slots.

5. Finally, it was reported last year that HH 100 was being considered for selection as a State-validated program. The selection can be reported this year as another exemplary project success.

Robert J. Nearine
Evaluation, Research, & Testing Office
July 13, 1981

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APPENDIX

FOR STATE USE ONLY						
Card	1	DATA CONTROL USE	3	4	5	6	7

Form 1: Compensatory Project Report

ED - 205 Rev. 4-81

INSTRUCTIONS:
1. Prepare three copies
2. Retain a copy
3. Send two copies to address below by June 20, 1981

TO: Connecticut State Department of Education, Compensatory Program, P. O. Box 2219, Hartford, Ct. 06115

FROM: School District Name	CODE 8	9	10	Project Title	11	12
Hartford	0	6	4	Higher Horizons		6

Type of Project (Enter code in box at right) CODE: 1=Public, 2=Non-Public	13	Project Setting Code: (See Instructions)	14
	1		1

Completed by: Name and Telephone Number	Evaluation Done by: Name and Telephone Number
Robert J Nearine 566-6074	Robert J Nearine 566-6074

	16	17
Number of attendance areas in district which are eligible for Title I services:	1	8
Number of attendance areas in district receiving Title I services:	1	8

Project Information

Grade:	PK	K	1	2	3	4	5	6	7	8	9	10	11	12
Codes:	23-25	26-28	29-31	32-34	35-37	38-40	41-43	44-46	47-49	50-52	53-55	56-58	59-61	62-64
Pupils in Project 754									211	147	296	100		
Average Size of Instructional Groups (Card 2)				1:	1:	1:	1:	1:	1:25	1:25	1:25	1:25	1:	1:
Estimated Average Hours Per Week of Instruction Per Child (Card 3)									25	25	25	25		
Estimated Average Total Hours for Project Year per Child (Card 4)									900	900	900	900		

Report The Number Of Staff Paid By Compensatory Funds And Staff Development Activities

		Administrators	Teachers	Teacher Aides	Curriculum Specialists	Support Service Staff	Clerical Staff	Other Staff
Number Of Title I Staff	Card 5	20-22	23-25	26-28	29-31	32-34	38-40	41-43
			9	8				4
Number of Title I Staff In Full Time Equivalents		44-47	48-51	52-55	56-59	60-63	64-67	68-71
			9	8				4
Number of SADC Staff	Card 6	20-21	22-23	24-25	26-27	28-29	30-31	32-33
Number of SADC Staff In Full Time Equivalents		34-37	38-41	42-45	46-49	50-53	54-57	58-61
Number of Title I Personnel Receiving Staff Development		61-62	63-64	65-66	67-68	69-70	71-72	73-74
Number of Non-Title I Personnel Receiving Staff Development	Card 7	20-21	22-23	24-25	26-27	28-29	30-31	32-33

Project Expenditures for the past Fiscal Year (to nearest dollar). Allocation

Card 8	21	22	23	24	25	26	27		29	30	31	32	33	34	35		37	38	39	40	41	42	43
ESEA Title I Funds		3	6	6	2	7	5	SADC Public Funds								SADC Nonpublic Funds							
	44	45	46	47	48	49			51	52	53	54	55	56	57		59	60	61	62	63	64	65
Local Compensatory Funds								Other Funds (please specify)								Total All Funds		3	6	6	2	7	5

FORM 2: COMPENSATORY PROJECT REPORT - IMPACT DATA

FROM: SCHOOL DISTRICT NAME Hartford | 8 9 10: 064 | PROJECT TITLE HM 100 | 13: 6

Please read the instructions and give the following information on the back of the form:

1. Project Objectives
2. Data Analysis and Interpretation
3. Project Recommendations

Type of Project
Code: 1=Public, 2=Non-public (enter code at right) — Project Code — 14: 1

Subject Area
Code: 1=Reading, 2=Language Arts, 3=Mathematics (enter code) — 15: 1

Was Pretest used for Student Selection Code: 1=yes 2=no (enter code) — 16: 2

If yes, was the State approved regression formula applied to data? Code: 1=yes, 2=no (enter code) — 17:

Test Name Metropolitan Ach. Test — Edition 1978 — 18 19: 2 7

Type of Norm Used
Code: 1=National, 2=Local, 3=Other (enter code) — 20: 1

Testing Schedule
Code: 1=fall/spring, 2=spring/spring, 3=fall/fall — 21: 1

If out-of-level testing was done at any grade, put the number "1" at the grade levels that apply.

Grade	2	3	4	5	6	7	8	9	10	11	12
	30	31	32	33	34	35	36	37	38	39	40

If none, check box. [X]

TESTING PROGRAM REPORT

Grade Col. 1		Total Pupils in Project Col. 2	# of Pupils who took pre/post Test Col. 3	Month of Pre/Post Testing Col. 4	Name of Subtest Col. 5	Pre/Post Battery Level Col. 6	Pre/Post Form Col. 7	PRETEST INFORMATION: Mean Standard Score * Col. 8	PRETEST: Associated Percentile Equivalent Col. 9	PRETEST: Associated Pretest NCE Col. 10	POSTTEST INFORMATION: Mean Standard Score * Col. 11	POSTTEST: Associated Percentile Equivalent Col. 12	POSTTEST: Associated Posttest NCE Col. 13	NCE Gain (Col 13 - Col 10) Col. 14	Weighted NCE Gain (Col 3 x Col 14) Col. 15
Card 12	16 17	18 - 20	21 - 23	24	26 27	28	29	30 - 31	32 - 33	34 - 37	38 - 39	40 - 41	42 - 45	46 - 49	50 - 55
Grade 2	02														
Card 13 Grade 3	03														
Card 14 Grade 4	04														
Card 15 Grade 5	05														
Card 16 Grade 6	06														
Card 17 Grade 7	07	211	162	Sep / May	Read	Adv. / Adv	JS / JS	674.4	20	32.3	716.5	32	40.1	7.8	1263.6
Card 18 Grade 8	08	147	158	Sep / May	Read	Adv. / Adv	JS / JS	715.3	28	37.7	748.7	38	43.6	5.9	932.2
Card 19 Grade 9	09	296	262	Sep / May	Read	Adv. / Adv	JS / JS	731.2	30	39.0	764.6	36	42.5	3.5	917.0
Card 20 Grade 10	10	100	75	Sep / May	Read	Adv. / Adv	JS / JS	736.3	23	34.4	767.3	26	36.5	2.1	157.5
Card 21 Grade 11	11														
Card 22 Grade 12	12														

* scores are included in this column only when the test manual converts scores to percentiles.

Results and Recommendations

PROJECT OBJECTIVES

1. Students will on the average make gains of 6 percentile points in reading and math.

2. Students will on the average make better attendance [percentages] then the hosting school grade level.

3. Students will acquire a realistic and positive attitude towards themselves and school.

DATA ANALYSIS AND INTERPRETATION

1. Fall to spring MAT standard scores were analyzed using a test of related means at the .05 level by team and by grade. All gains were highly significant (.01). When mean standard scores were converted to percentiles the 6 percentile standard was met in all cases with the exception of one team (HPHS-10) in Reading. One seventh grade (FMS 7/80) in Math, and one team (FMS 7/80, grades 7 & 8) in Language. While NCE gains ranged from 0 to 14.2, weighted project NCE's ranged from 5.1 in Reading and Language to 6.8 in Math. The objective as a whole was attained.

2. While school attendance percentages were not available, projected attendance standards were met by all teams. The objective was attained.

3. Mean ratings on a spring pupil rating scale indicated the HH 100 had helped to some extent in all areas assessed. that the youngsters felt personal and scholastic growth took place most of the time, and that relationships to school and to other youngsters were positive most of the time. The objective was attained.

PROJECT RECOMMENDATIONS

See page 20.

FORM 2: COMPENSATORY PROJECT REPORT - IMPACT DATA

FROM: SCHOOL DISTRICT NAME Hartford | 8 9 10: 06 4 | PROJECT TITLE HH 100 | 13: 6

Please read the instructions and give the following information on the back of the form:

1. Project Objectives
2. Data Analysis and Interpretation
3. Project Recommendations

Type of Project
Code: 1=Public, 2=Non-public (enter code at right) Project Code [14] 1

Subject Area
Code: 1=Reading, 2=Language Arts, 3=Mathematics (enter code) [15] 2

Was Pretest used for Student Selection Code: 1=yes 2=no (enter code) [16] 2

If yes, was the State approved regression formula applied to data? Code: 1=yes, 2=no (enter code) [17]

Test Name Metropolitan Ach. Test Edition 1978 [18] 2 [19] 7

Type of Norm Used Code: 1=National, 2=Local, 3=Other (enter code) [20] 1

Testing Schedule Code: 1=fall/spring, 2=spring/spring, 3=fall/fall [21] 1

If out-of-level testing was done at any grade, put the number "1" at the grade levels that apply.

Grade	2	3	4	5	6	7	8	9	10	11	12
	30	31	32	33	34	35	36	37	38	39	40

If none, check box. [X]

TESTING PROGRAM REPORT

Grade Col. 1 (Card 12, 16-17)	Total Pupils in Project Col. 2 (18-20)	# of Pupils who took pre/post Test Col. 3 (21-23)	Month of Pre/Post Testing Col. 4 (24)	Name of Subtest Col. 5 (26-27)	Pre/Post Battery Level Col. 6 (28)	Pre/Post Form Col. 7 (29)	PRETEST INFORMATION: Mean Standard Score* Col. 8 (30-31)	Associated Percentile Equivalent Col. 9 (32-33)	Associated Pretest NCE Col. 10 (34-37)	POSTTEST INFORMATION: Mean Standard Score* Col. 11 (38-39)	Associated Percentile Equivalent Col. 12 (40-41)	Associated Posttest NCE Col. 13 (42-45)	NCE Gain (Col 13 - Col 10) Col. 14 (46-49)	Weighted NCE Gain (Col 3 x Col 14) Col. 15 (50-55)
Grade 2 02 (Card 13)														
Grade 3 03 (Card 14)														
Grade 4 04 (Card 15)														
Grade 5 05 (Card 16)														
Grade 6 06 (Card 17)														
Grade 7 07 (Card 18)	211	160	Sep / May	Lang.	Adv. / Adv	JS / JS	660.7	36	42.5	712.8	42	45.8	3.3	528.0
Grade 8 08 (Card 19)	147	158	Sep / May	Lang.	Adv. / Adv	JS / JS	701.7	34	41.3	752.7	44	46.8	5.5	869.0
Grade 9 09 (Card 20)	296	85	Sep / May	Lang.	Adv. / Adv	JS / JS	690.8	26	36.5	751.4	40	44.7	8.2	697.0
Grade 10 10 (Card 21)	100	76	Sep / May	Lang	Adv. / Adv	JS / JS	717.7	28	37.7	758.4	34	41.3	3.6	273.0
Grade 11 11 (Card 22)														
Grade 12 12														

* Scores are included in this column only when the test manual converts scores to percentiles.

Results and Recommendations

PROJECT OBJECTIVES

1. Students will on the average make gains of 6 percentile points in reading and math.

2. Students will on the average make better attendance [percentages] then the hosting school grade level.

3. Students will acquire a realistic and positive attitude towards themselves and school.

DATA ANALYSIS AND INTERPRETATION

1. Fall to spring MAT standard scores were analyzed using a test of related means at the .05 level by team and by grade. All gains were highly significant (.01). When mean standard scores were converted to percentiles the 6 percentile standard was met in all cases with the exception of one team (HPHS-10) in Reading. One seventh grade (FMS 7/80) in Math, and one team (FMS 7/80, grades 7 & 8) in Language. While NCE gains ranged from -0- to 14.2, weighted project NCE's ranged from 5.1 in Reading and Language to 6.8 in Math. The objective as a whole was attained.

2. While school attendance percentages were not available, projected attendance standards were met by all teams. The objective was attained.

3. Mean ratings on a spring pupil rating scale indicated the HH 100 had helped to some extent in all areas assessed, that the youngsters felt personal and scholastic growth took place most of the time, and that relationships to school and to other youngsters were positive most of the time. The objective was attained.

PROJECT RECOMMENDATIONS

See page 20.

FORM 2: COMPENSATORY PROJECT REPORT - IMPACT DATA

FROM: SCHOOL DISTRICT NAME: Hartford (8-10: 0 6 4)

PROJECT TITLE: HH 100 (13: 6)

Type of Project
Code: 1-Public, 2-Non-public (enter code at right) Project Code (14): 1

Subject Area
Code: 1-Reading, 2-Language Arts, 3-Mathematics (enter code) (15): 3

Was Pretest used for Student Selection Code: 1=yes 2=no (enter code) (16): 1

If yes, was the State approved regression formula applied to data? Code: 1-yes, 2-no (enter code) (17):

Test Name: Metropolitan Ach. Test Edition: 1978 (18-19): 2 7

Type of Norm Used
Code: 1-National, 2-Local, 3-Other (enter code) (20): 1

Testing Schedule
Code: 1-fall/spring, 2-spring/spring, 3-fall/fall (21): 1

If out-of-level testing was done at any grade, put the number "1" at the grade levels that apply.

Grade	2	3	4	5	6	7	8	9	10	11	12
	30	31	32	33	34	35	36	37	38	39	40

If none, check box. [X]

Please read the instructions and give the following information on the back of the form:

1. Project Objectives
2. Data Analysis and Interpretation
3. Project Recommendations

TESTING PROGRAM REPORT

Grade Col. 1	Total Pupils in Project Col. 2 (18-20)	# of Pupils who took pre/post Test Col. 3 (21-23)	Month of Pre/Post Testing Col. 4 (24)	Name of Subtest Col. 5 (26 27)	Pre/Post Battery Level Col. 6 (28)	Pre/Post Form Col. 7 (29)	PRETEST INFORMATION: Mean Standard Score* Col. 8 (30-31)	Associated Percentile Equivalent Col. 9 (32-33)	Associated Pretest NCE Col. 10 (34-37)	POSTTEST INFORMATION: Mean Standard Score* Col. 11 (38-39)	Associated Percentile Equivalent Col. 12 (40-41)	Associated Posttest NCE Col. 13 (42-45)	NCE Gain (Col 13 - Col 10) Col. 14 (46-49)	Weighted NCE Gain (Col 3 x Col 14) Col. 15 (50-55)
Card 12 X17														
Grade 2 02 / Card 13														
Grade 3 03 / Card 14														
Grade 4 04 / Card 15														
Grade 5 05 / Card 16														
Grade 6 06 / Card 17														
Grade 7 07 / Card 18	211	161	Sep / May	Math	Adv. / Adv	JS / JS	655.5	32	40.1	717.4	44	46.8	6.7	1078.7
Grade 8 08 / Card 19	147	158	Sep / May	Math	Adv. / Adv	JS / JS	691.0	30	39.0	729.2	38	43.6	4.6	726.8
Grade 9 09 / Card 20	296	263	Sep / May	Math	Adv. / Adv	JS / JS	716.8	32	40.1	753.2	42	45.8	5.7	1499.1
Grade 10 10 / Card 21	100	76	Sep / May	Math	Adv. / Adv	JS / JS	729.6	32	40.1	763.4	38	43.6	3.5	266.0
Grade 11 11 / Card 22														
Grade 12 12														

* Scores are included in this column only when the test manual converts scores to percentiles.