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ABSTRACT

The High School Homework Program was designed to provide eligible high school students, grades 9 through 12, with intensive individualized remedial instruction in reading, mathematics, and language as well as assistance with daily homework assignments. The major objectives of the program were to help students who were two or more years retarded in reading or mathematics improve their ability in these areas of academic achievement, and to help students whose native language was not English improve their language and mathematics skills. Over 4,000 students participated in the program. They were all volunteers. The program trained and employed high school and college students to serve as peer tutors. The analysis of reading and math test scores yielded highly significant differences between predicted and post test gains and actual post test gains in language and mathematics skills. The students who received tutoring in the program showed, on the average, an increment of two months of academic achievement for every month of participation in the program. This evaluation indicates that the outstanding success of the program can be attributed to the following factors: an excellent orientation component, good program organization, tutorial strategies, material used in the program, and staff interest in students. (Author/AM)

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EVALUATION REPORT

Function No. 09-59615

HIGH SCHOOL PEER TUTORING (HOMEWORK HELPERS) PROGRAM

SCHOOL YEAR 1974-1975

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
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Dr. Paul Heintz

An evaluation of a New York City School district educational project funded under Title I of the Elementary and Secondary Education Act of 1965 (PL 89-10) performed for the Board of Education of the City of New York for the 1974-1975 school year.

Dr. Anthony J. Polemeni, Director

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CHAPTER I

The Program

The 1974-1975 High School Homework Helper Program was designed to provide Title I eligible high school students, grades 9 through 12, with intensive, individual tutoring by their peers (tutors), which included individualized remedial instruction in reading, mathematics, and language; as well as assistance with daily homework assignments. All of the students receiving tutoring (tutees) were performing at least two years below grade level in reading and/or mathematics at the time of entry into the program. Students whose native language is not English and who were achieving significantly below grade level were also provided tutoring and remedial instruction in language. The low achievement of the secondary-level target population indicated that they required special assistance in learning, in addition to the more traditional instructional approaches that had been provided by the schools.

Participation of the tutees in the program was completely voluntary. A variety of techniques were utilized by the program personnel to advertise the availability of tutoring and assistance with homework, as well as to inform potential tutees of the benefits of participating in the project. These techniques included periodic announcements over the public address system, posters placed at various locations in schools, notices sent to parents, notices distributed to students who received failing grades on report cards, recommendations made by guidance counselors and subject matter teachers, and personal communications by program personnel and tutees already receiving assistance in the program. Further incentives to enroll or continue participation in the program were included in some

schools, such as using progress report forms on which subject matter teachers were informed of the time and effort spent by the tutees on course related assignments, and awarding certificates of attendance and even trophies to tutees for outstanding attendance records.

A unique feature of the High School Homework Helper Program, as pointed out by the project coordinator, is that it "employs and trains indigenous high school and college youngsters to serve as tutors" for the target population described above. The program is designed to benefit the tutors as well as the tutees, and an attempt is made to recruit the former from backgrounds that are similar to that of the tutees.

The three major objectives of the program, as stated in the project proposal are:

To help students who are two or more years retarded in reading, improve their reading ability.

To help students two or more years retarded in mathematics, improve their mathematics ability.

To help pupils whose native language is not English improve their language and mathematical skills.

The major program activity is the tutoring of low achieving high school students (tutees), which takes place on Monday through Thursday, either before or after regular school hours, with each session lasting two hours. The staff of each Homework Helper Center, located in the

individual high schools, consists of a Master Teacher (teacher-in-charge); one adult paraprofessional; one teacher aide; a part-time secretary; and approximately 12 paid high school and college student tutors, most of whom are in the former category. Tutees generally participate in the tutoring sessions two days per week, but attend more frequently in some centers.

The program is operated under the direction of a full-time coordinator, with the aid of a full-time assistant project coordinator. In addition, the program has 10 per session area coordinators who serve in the capacity of general assistants and subject matter consultants to the teachers-in-charge.

The tutors participate in an orientation and training session prior to the beginning of formal tutoring sessions, and once each month on Friday afternoons for further training in the use of high-interest, low reading level books and other remedial materials and techniques. In addition, the teachers-in-charge, assisted by other staff members, provided the tutors with continuous feedback and suggestions regarding the maintenance and improvement of the quality of tutorial instruction. The teachers participate in monthly workshop-type conferences conducted by the program coordinators, the assistants, subject matter specialists, and some outside speakers in order to discuss remedial materials and techniques, and plan for the further enrichment of instruction and improvement of program operation.

The program utilizes space available in classrooms or cafeterias within the individual high schools. The time devoted to remedial instruction in reading, mathematics, and language and tutoring in subject areas varied to meet the needs of specific groups of tutees in the participating

high schools which differ in varying degrees with respect to curricular emphases and requirements.

The tutoring program, inclusive of tutor training sessions, operated between the dates of November 1, 1974 through May 30, 1975, with a break in the sessions occurring between January 17 and February 9. The length of participation in the program by the tutees varied considerably due to the voluntary nature of the program, as well as to some mid-year graduations and changes in student schedules.

CHAPTER II

Evaluation Procedures

Evaluation Objective I

To determine whether as a result of participation in the Peer Tutoring Program, the reading grade level of the students will show a statistically significant difference between the real post-test scores and the anticipated post-test scores.

Subjects

All students who have participated in the reading component of the program.

Methods and Procedures

The appropriate form and level of The Nelson Reading Test was administered initially and finally.

Analysis of Data

Data was analyzed by the "Real Post-test versus Anticipated Post-test design." A "t" test for correlated data was used to determine the significance level. The .05 level of probability was used as an indicator of level of significance.

Time Schedule

Pre-tests were administered the first week the students voluntarily enrolled in the program, and post-tests were given during the last week the pupils attended the program.

Evaluation Objective II

To determine whether as a result of participation in the Peer Tutoring Program, the mathematics grade of the students will show a statistically significant difference between the real post-test scores and the anticipated post-test scores.

Subjects

All students who have participated in the mathematics component of the program.

Methods and Procedures

The appropriate form and level of the Stanford Achievement Test was administered on a pre- post-test basis.

Analysis of Data

Data was analyzed by the "Real Post-test versus Anticipated Post-test design." A "t" test for correlated data was used to determine the significance level. The .05 level of probability was used as an indicator of level of significance.

Time Schedule

Pre-tests were administered the first week the students voluntarily enrolled in the program, and post-tests were given during the last week the pupils attended the program.

Evaluation Objective III

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

Subjects

All participants in the program.

Methods and Procedures

In order to evaluate the quality and extent to which the program had been implemented, close monitoring of the program was carried out through site visits to the Homework Helper Centers; by examining rosters and other materials containing lists of personnel working in the project, together with their job descriptions; by attending city-wide and borough staff meetings; by examining agenda of meetings and other documents related to the implementation of the program; and by maintaining continuous personal, written, and telephone contact with the project coordinator and his assistant in order to obtain data on all aspects of the functioning of the project.

Analysis of Data

A statement concerning the extent of implementation will be made in a later section.

CHAPTER III

Findings

Evaluation Objective I

To determine whether as a result of participation in the program, the reading grade level of the students will show a statistically significant difference between the real post-test scores and the anticipated post-test scores.

Table 1 contains a summary of the data relevant to the first evaluation objective. The data contained in Table 1 have been grouped by grade (9th and 10th through 12th grades), and separately for word recognition, comprehension, and total reading grade level. The results of the test of significance between actual post-test scores and anticipated post-test scores revealed highly significant differences for the word recognition subtest ($t = 14.55, .0001$), reading comprehension ($t = 11.39, .0001$), and total reading ($t = 17.56, .0001$), with all actual post-test scores being higher. A comparison of the mean actual post-test scores with the predicted post-test scores indicates that the 9th grade students gained approximately one-half year in excess of what was predicted on the basis of their past history of achievement in all three areas of reading. An examination of Table 1 also reveals that the 9th graders made actual average gains of approximately 7 months in each area of reading, while participating in the program on the average of 3.5 months. Thus, the 9th grades gained two months in reading for every month of participation in the program.

Table 1 also contains data on reading gains for the 10th through 12th grade students. These data for the 10th through 12th graders also provide

TABLE 1

Results of Historical Regression Analysis
 in Reading Achievement
 (Real Post Scores vs. Anticipated Post Scores)

AREA	GRADE LEVEL	N	MEAN TIME IN PROGRAM	PRE-MEAN GRADE LEVEL	PREDICTED POST GRADE LEVEL	ACTUAL POST GRADE LEVEL	t	p
Word Recognition	9	821	.34	5.57	5.76	6.30	14.55	.0001
	10-12	1627	.35	6.26	6.46	7.14	20.58	.0001
Compre- hension	9	821	.34	5.33	5.50	6.00	11.39	.0001
	10-12	1627	.35	5.98	6.16	7.14	26.77	.0001
Total Reading	9	821	.34	5.45	5.63	6.14	24.12	.0001
	10-12	1627	.35	6.12	6.31	7.03	24.65	.0001

highly significant support for the program objectives of increasing the reading grade level of the target population. Although the upper-level students participated in the program for an average of 3.5 months, their actual growth in total reading was 9 months. These students gained approximately 7 months more in total reading than what was predicted on the basis of their previous history of achievement in reading, and this difference is highly significant (.0001).

Evaluation Objective II

To determine whether as a result of participation in the Peer Tutoring Program, the mathematics grade of the students will show a statistically significant difference between the real post-test scores and the anticipated post-test scores.

The results of the historical regression analysis of the data in mathematics are summarized in Table 2. Reference to Table 2 indicates that the 9th graders actual post-test scores in math computations, math concepts, and total mathematics were all significantly greater than their predicted post-test scores. Gains in excess of predicted post-test scores were approximately 5 months for the three areas of mathematics analyzed. The 9th grade students gained 6.5 to 7 months in the three areas measured, while being enrolled in the program on an average of slightly more than 3 months. All test of significance between actual post-test scores and anticipated post-test scores were highly significant (.0001).

The results of the analysis of mathematics test scores for the 10th through 12th grade students are also presented in Table 2. Further examination of Table 2, indicates that the test of significance between actual post-test scores and anticipated scores are also highly significant for

TABLE 2

Results of Historical Regression Analysis
 in Mathematics
 (Real Post Scores vs. Anticipated Post Scores)

AREA	GRADE LEVEL	N	MEAN TIME IN PROGRAM	PRE-MEAN GRADE LEVEL	PREDICTED POST GRADE LEVEL	ACTUAL POST GRADE LEVEL	t	p
Computation	9	452	.32	5.59	5.78	6.29	10.65	.0001
	10-12	918	.36	6.49	6.69	7.25	13.19	.0001
Concepts	9	452	.32	6.01	6.21	6.63	8.86	.0001
	10-12	918	.36	6.94	7.16	7.59	9.72	.0001
Total Mathematics	9	452	.32	5.80	6.00	6.46	12.87	.0001
	10-12	918	.36	6.72	6.93	7.42	14.43	.0001

computation ($t = 13.19, .0001$), math concepts ($t = 7.59, .0001$), and total mathematics scores ($t = 7.42, .0001$), with all actual post-test scores being higher. The 10th through 12th graders exhibited final gains in excess of anticipated post scores of approximately 5 months, while their actual gains in mathematics generally was 6.5 to 7.5 months over the period of 3.6 months most students participated in the program. As was the case with reading increments, the students gained approximately 2 months for every month they participated in the tutoring sessions.

Evaluation Objective III

To evaluate the extent to which the program as actually carried out, coincided with the program as described in the project proposal. An examination of the personnel rosters and other documents supplied by the project coordinator, revealed that a total of 983 persons were employed to provide direct or supportive Title I services during the 1974-1975 project year (see Figure 1) This total consisted of 7 full-time staff members, with the remainder of the 1976 made up of hourly, per session personnel. Full time staff members included 1 coordinator, 1 assistant coordinator, 2 school secretaries, 1 clerk typist, 1 auxiliary trainee, and 1 teacher aide. The 732 student tutors accounted for most of the part-time staff, followed by 61 each of master teachers, teacher aides, and educational assistants. The remaining part-time staff included 50 school secretaries, 10 area coordinators, and 1 auxiliary trainer.

The program initially began with 50 Homework Helpers Centers in November and was increased to 61 at the beginning of the second term. Most high schools housed 1 center, although a few had 2 or 3 centers because of higher total school enrollments and/or greater demand for tutoring services.

FIGURE 1

HIGH SCHOOL PEER TUTORING (HOMEWORK HELPERS) PROGRAM
STAFF ORGANIZATION 1974-1975 SCHOOL YEAR

FULL TIME STAFF

1 Coordinator
1 Assistant Coordinator
2 School Secretaries
1 Clerk Typist
1 Auxiliary Trainer
1 Teacher Aide

HOURLY (PER SESSION) STAFF

10 Area Coordinators
61 Teachers
50 School Secretaries
1 Auxiliary Trainer
61 Teacher Aides
61 Educational Assistants
732 Student Aides

The Data Loss Form (see page 24) presents information on the total number of students who participated in the project and received tutorial/remedial services in reading, mathematics, and homework assignments. A total of 2,792 students received tutoring in reading, with 930 and 1,862 of these students attending the 9th and 10th through 12th grades, respectively. Five hundred and eighteen 9th grade students and 1,068 10th through 12th grade students received tutoring in mathematics, making a total of 1,586 high school students who took advantage of the tutoring/remedial services in the area of mathematics. Thus, a total of 4,378 students, in grades 9 through 12 received Title I tutorial services during the current project year.

The site visits focused on evaluation of the adequacy of facilities, materials, and instructional/tutorial activities. Interviews were conducted with teachers, education assistants and aides, some principals, and the tutors and tutees. The centers as a whole were well organized, efficiently operated, and able to attract sufficiently large numbers of tutees. The space available to the program varied from adequate to excellent, with most centers having very good to excellent classroom space. In most cases, teachers were free to use as many classrooms as they wished.

Direct observations of the tutoring sessions revealed that the instructional activities planned and utilized by the master teachers and tutors were based on sound educational principles and were appropriate for the target population served. Most tutors appeared to have developed excellent working relationships with their tutees, as demonstrated by the amount and quality of tutoring and learning observed during the site visits. The reactions of tutors and tutees to the value of the program was, in all cases, highly positive. These positive feelings about the program were shared by the school principals interviewed who felt that the program was a real asset to their schools.

The master teachers rated the adequacy of materials and supplies provided for use in the program from adequate (one case) to excellent, with the vast majority of teachers ratings falling in the upper range of ratings. Each center had a variety of materials and supplies which included audio-visual equipment, educational games, and special instructional materials (e.g., skill attainment kits, SRA, Reader's Digest Skill Builders, work books, tapes, film strips, ESL material, etc.) which were appropriate for use with the target population. Observations made on site visits indicated that the materials were utilized effectively by the teachers and tutees.

As a group, the staff members in the project were motivated, sensitive to the needs of the target population, and interested in the progress made by the tutees. The working relationships established among the staff were excellent, with each group contributing to the success of the program in meeting its objectives. The assistant coordinator, general assistants, auxiliary trainers, and subject matter specialists were considered by the teachers to provide valuable assistance with training activities, instructional materials, and important administrative details necessary for the day-to-day operation of the program. The program included a series of useful monthly workshops for teachers, which were conducted by the reading and mathematics specialists under the direction of the project coordinator. Interviews with teachers indicated that these workshops were quite helpful and provided an opportunity for exchanging ideas and techniques that had been found to be particularly successful by individual teachers.

The quality of the orientation, supervision, organization, and leadership provided by the program coordinator contributed significantly to meeting the program objectives and to maintaining the high quality of the program already described. Administrative tasks were carried out efficiently and in an organized manner. Direct observations of the coordinator during teacher workshops and city-wide staff meetings, revealed that program priorities and objectives were clearly and effectively communicated to the project staff.

The process through which the high school students were cleared for employment as tutors was extremely difficult and drawn out, and in some cases caused a delay in hiring or paying tutors. These students, who are permitted to attend classes during the regular school hours, must complete

most of the paperwork and other steps required by "outside" civil service employees, including fingerprinting, constitutional oath, among others. The fact that the applications of only 2 students have been questioned (and later approved) in the many years the program has been in operation attests to the fact that the procedures for hiring high school students are highly unreasonable. These procedures also reduce the flexibility possible for replacing or adding tutors in the individual centers.

Interviews with the master teachers indicated some concern over the fact that the program calendar was uniform for all high schools and did not fit the specific needs and schedules of some of the schools. While some teachers felt the program calendar was appropriate for their schools, others expressed a desire to begin earlier, eliminate the mid-year break and/or extend the schedule into June.

The recommendations which were made in the 1973-1974 evaluation include: (1) the addition of workshops for teachers early in the academic year, organized on a borough basis; (2) a review of procedures established by the Personnel Division; (3) the use of different levels of the same test be used to match the content areas of the different high schools; (4) the replacement of the Nelson Denny reading test by a "diagnostic" test; (5) the provision of opportunity for teachers to exchange ideas regarding program concerns and procedures; and (6) a review of the rationale for discontinuing the snacks.

As indicated earlier, the program held monthly teacher workshops which included demonstration and discussion of tutoring resources and techniques. Teachers were also provided the opportunity to exchange ideas and techniques, with the workshops organized for teachers from boroughs rather than

on a city-wide basis. The coordinator and the program staff have explored the possibility of using different tests in an attempt to match the tests to the content emphasis of the various schools. These tests have not been located, if indeed, they exist. The project coordinator has indicated a willingness to examine the results of using various achievement tests on a pilot basis in some of the schools, including tests considered to be more diagnostic in nature. The procedures used by the Personnel Division and the absence of snacks continue to be perceived as being areas of difficulty by the coordinator and attempts to modify procedures in these areas have been explored.

In short, it was evident that the project coordinator was highly successful in implementing the program as outlined in the project proposal and on the basis of recommendations made in the previous evaluation report. The program provided valuable services which were appropriate for the needs of the high school students who were at least 2 years below grade level in reading or mathematics.

CHAPTER IV

Summary, Conclusions, and Recommendations

The major objectives of the High School Peer Tutoring Program were to improve the reading and mathematics achievement of high school students who were 2 or more below grade level in these areas. A total of 4,378 9th through 12th grade students voluntarily participated in the program which was offered outside of the regular school hours. The program provided tutorial services for two hours each day, for four days each week during the school year. Historical regression analysis of pre- and post-test data in reading and mathematics revealed highly statistically significant differences. Students participating in the program show on average approximately two months of gain in achievement for each month of participation in the program. The program was fully implemented as outlined in the project proposal. These significant findings are supportive of the major objectives of the program.

The following recommendations are made for the purpose of suggesting ways in which a sound program may be further strengthened.

1. The program should be recycled and expanded, if possible, to include tutoring services for additional high school students.
2. The procedures for clearing the employment of high school students to serve as tutors in the program should be simplified drastically. Working papers, (which includes a physical exam), plus parental approval seem

to be reasonable requirements for employing high school students who have been interviewed and cleared by a master teacher within their own high school.

3. The usefulness of various achievement and diagnostic tests should be evaluated on a pilot basis in selected schools for possible future use.
4. Snacks should be provided in randomly selected centers in order to determine whether these significantly influence student enrollment in the program.
5. Ways in which the program calendar can be made more flexible should be explored. Since the high schools vary with respect to their individual yearly schedules, master teachers should be given the option, after consultation with the school principal and project area coordinator, of determining their own calendars.

CHAPTER V

Exemplary Program Abstract

Component Code	Activity Code	Objective Code
60815	722	801
60816	722	801
60915	722	801
60916	722	801

The major objectives of the High School Peer Tutoring Program were to help students who are two or more years retarded in reading or mathematics improve their ability in these areas of academic achievement, and to help students whose native language is not English improve their language and mathematics skills. The program provided intensive, individualized tutorial services through remedial instruction and homework assistance to approximately 4,378 students who were achieving significantly below grade level at the time of their voluntary entry into the program. A unique feature of the program is its training and employment of indigenous high school and college students to serve as peer tutors. The program included an ongoing tutor training component which was accomplished by holding monthly tutor-training sessions and providing daily observations and consultation with master teachers and other program personnel during the two hours the program was in operation, four days per week.

The analysis of reading and mathematics test scores using the historical regression analysis yielded highly significant differences between predicted post-test gains and actual post-test gains in both areas (.0001). The students who received tutoring in the program showed, on average, an increment of two months of academic achievement for every month of participation in the program. Overall evaluation of the gains

made between testing periods suggest that these gains are educationally as well as statistically significant, particularly for students who had been unresponsive to the more traditional instructional environments prior to their enrollment in the program.

A number of factors contributed to the outstanding success of the program in accomplishing its stated objectives. These factors included the excellent orientation, organization, and leadership provided by the project coordinator; the tutorial strategies and materials utilized in the program, which were based on sound educational principals; and the generally outstanding interest in students and educational expertise exhibited by the project staff. In addition, the use of peer tutors and the voluntary nature of the after- or before-school Homework Helpers Program, provided the students with a new learning situation which they did not associate with their previous failure experiences, with the opportunity to interact with peer tutors with whom they felt less anxiety about trying and not succeeding immediately, and an opportunity to learn because they made the decision themselves to participate in the program.

REFERENCES

- Deering, A.R. Fact Sheet: High School Homework Helpers Program.
New York: Board of Education of the City of New York, 1973-
1974.
- U.S. Department of Health, Education, and Welfare. Homework Helpers
Program New York City. Washington, D.C.: U.S. Government Printing
Office, 1973.

HIGH SCHOOL PEER TUTORING (HOMEWORK HELPERS) PROGRAM

Function No. 09-59615

Use Table 30A. for Historical Regression Design (6-Step Formula) for Reading (English); Math (English); Reading (Non-English); Math (Non-English).

30A. Standardized Test Results.

In the Table below, enter the requested information about the tests used to evaluate the effectiveness of major project components/activities in achieving desired objectives. This form requires means obtained from scores in the form of grade equivalent units as processed by the 6 step formula (see District Evaluator's Handbook of Selected Evaluation Procedures, p. 45-49). Before completing this table, read all footnotes. Attach additional sheets if necessary.

49

Component Code	Activity Code	Test Used ^{1/}	Form		Level		Total N ^{2/}	Group I.D. ^{3/}	Number Tested ^{4/}	Pretest		Predicted Posttest Mean	Actual Posttest		Statistical Data	
			Pre	Post	Pre	Post				Date	Mean*		Date	Mean	Obtained Value of t	Level of significance
6 0 8 1 5 7 2 2		Nelson Rdg.	A	B	Int.	Int.	930	GR 9	821	**	5.45	5.63	**	6.14	24.12	.0001
6 0 8 1 6 7 2 2		"	A	B	"	"	1862	16	1627	"	6.12	6.31	"	7.03	24.65	.0001
6 0 9 1 5 7 2 2		Stan Math	W	X	Adv.	Adv.	518	GR 9	452	"	5.80	6.00	"	6.46	12.87	.0001
6 0 9 1 6 7 2 2		"	X	X	"	"	1068	16	918	"	6.72	6.93	"	7.42	14.43	.0001

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

2/ Total number of participants in the activity.

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

4/ Total number of participants included in the pre and posttest calculations.

5/ Specify level of statistical significance obtained (e.g., $p \leq .05$; $p \leq .01$).

* All \bar{x} scores are for total achievement.

** Pre- and post-test dates varied because participation in the program was voluntary and students

free to enter or leave the program during the entire project year.

OFFICE OF EDUCATIONAL EVALUATION - DATA LOSS FORM
 (attach to MIR, item #30) Function #09-59615

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

Component Code	Activity Code	(1) Group I.D.	(2) Test Used	(3) Total N	(4) Number Tested/ Analyzed	(5) Participants Not Tested/ Analyzed		(6) Reasons why students were not tested, or if tested, were not analyzed	Number/ Reason
						N	%		
						6	0815722		
6	0816722	16	Nelson Rdnng. 62	1862	1627	235	13%	Moved, left school Spring reorganization, left program	58-59 60-58
6	0915722	GR 9	Stanford Math 64	518	452	66	13%	Moved, left school Spring reorganization, left program	111-110 108-114
6	0916722	16	Stanford Math 64	1068	918	150	16%	Moved, left school Spring reorganization, left program	36-38 40-36

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