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ABSTRACT

This report describes an evaluation of the Chapter 1 Mathematics Program for 1,008 students in grades 1 through 8 in the Des Moines (Iowa) Independent Community School District. Four comments summarize results of the evaluation: students in grades 2-8 surpassed the criterion for gains in the total mathematics score on the Iowa Tests of Basic Skills (ITBS); students in grades 1-8 achieved 81.9 percent of their educational plan objectives; contact with parents of Chapter 1 students has been an integral part of this program; and for the first time in recent years, first-grade students were administered the standardized evaluation instrument in 1985-86. Recommendations from the evaluation are summarized: (1) the program objective that deals with performance of first grade students on the ITBS should be revised to be consistent with those at other grade levels; (2) steps should be taken to improve the rate of attendance in the secondary program; (3) stronger emphasis should be applied in the area of contacts with parents at the transitional level; (4) the form for documenting parent activities or the objective related to these should be revised; and (5) the Supervisor of Chapter 1 Programs should examine the need to administer the Chapter 1 Parent Survey. Appendices include the budget and expenditures, a form for the principal's report of Chapter 1 instruction, the Self-Anchoring Attitude Scale (toward Learning), and the Chapter 1 Parent Survey. (LMO)

REPORT OF EVALUATION

Chapter I Mathematics Program

1985-86

Department of Evaluation, Research and Testing
Des Moines Independent Community School District
1800 Grand Avenue
Des Moines, IA 50307-3382

John F. Tompkins
Chapter I Program Evaluator

Approved by: Morris D. Wilson, Ph.D.
Director of Evaluation, Research and Testing

October 3, 1986

EVALUATION ABSTRACT
DES MOINES INDEPENDENT COMMUNITY SCHOOL DISTRICT
DEPARTMENT OF EVALUATION, RESEARCH AND TESTING

October 3, 1986

PROJECT TITLE: Chapter I Mathematics Program
COORDINATORS: Marilyn Miller, Elementary (.5)
Anita Jones, Secondary (.5)

PROJECT STAFF:
1.0 - Coordinators (FTE) (.50 Elementary, .50 Secondary)
25.2 - Mathematics Teachers
0.5 - Consultant (Kathleen Bullington)
1.0 - Secretary
27.7 - Total Full Time Equivalency Staff

OPERATIONAL SITES: Elementary Schools: Brooks, Edmunds, Findley, Howe, King-Perkins, Longfellow, Lucas, Madison, McKinley, Monroe-Rice, Moulton, Oak Park, Stowe, Wallace, Willard
Transitional Schools: Callanan, Harding, Hiatt, Hoyt, Weeks
Nonpublic Schools: All Saints, St. Anthony, Holy Family #1; Holy Family #2; Holy Family #3 (These students were served at Oak Park, King, Lucas, McKinley, Harding and Hiatt)

POPULATION SERVED: 1,008 Students in grades 1-8: (Computed by multiplying number of teaching positions by the designated student load for each teaching position. This is done because the number of students served varies during the program year).

FUNDING: Source: Chapter I, Education Consolidation and Improvement Act (ECIA)

Amount Budgeted:	$885,886.00
Amount Expended:	873,506.00
Cost per Pupil in 1985-86:	$ 866.57

(based on 1,008 students)

COMMENTS:

1. Students in grades 2-8 surpassed the criterion for gains in the total mathematics score on the Iowa Test of Basic Skills. Between pre and post-testing, students displayed an increase of 7.2 Normal Curve Equivalent units in the composite mathematics score. This increase compared to the criterion of 5.0 NCE unit gain. (The Normal Curve Equivalent or NCE is a scale much like the percentile scale except it is based on equal intervals between each unit, making it more accurate in measuring "gains").

2. Students in grades 1 - 8 achieved 81.9 percent of the objectives introduced to them in their educational plans. The educational plan developed for each student is the foundation on which each pupil's Chapter I instruction is based. The criterion level expressed in the proposal is that students will achieve 80 percent of the objectives presented.

3. Contact with parents of Chapter I students has been an integral part of this program since its inception. Chapter I teachers made a grand total of 1,309 contacts with parents of students in 1985-86 and are to be commended for their efforts in this area.

4. The 1985-86 school year was the first in the recent past that first grade students were administered the standardized evaluation instrument. This group of students fared extremely well, demonstrating an increase of 11.9 NCE units between pre and posttesting.

RECOMMENDATIONS:

1. The program objective that deals with performance of first grade students on the Iowa Tests of Basic Skills should be revised to express a criterion for attainment consistent with those at other grade levels. This would require specifying the "average gain" to be obtained rather than a percentage of the students that will reach a certain level. The average gain will best provide information on the entire population rather than only those students who achieved a certain score.

2. Steps should be taken to improve the rate of attendance of students in the secondary program. The rate of attendance for program students in grades 6 - 8 continues to fall below the rate for nonprogram students at the same buildings though the proposal states that the Chapter I students should be attending at a rate equal to or higher than non Chapter I students.

3. Stronger emphasis should be applied in the area of contacts with parents of students at the transitional level. During the first semester parents of 73.0 percent of the students in grades 6 - 8 were contacted personally compared to a criterion of 80 percent. This represents a decline in the rate of contacts made to parents of students at this level from the 1984-85 school year when the rate was 78.4.

4. The form for documenting parent activities planned by Chapter I secondary teachers or the objective related to these should be revised. The present reporting form does not provide for collection of the information necessary to evaluate the objective as written.

5. The Supervisor of Chapter I Programs should examine the need to administer the Chapter I Parent Survey based on the information received and costs involved. Possible options might include administration on less than an annual basis or elimination.

A copy of the complete evaluation report is available upon request from The Department of Evaluation. Research and Testing, 1800 Grand Avenue, Des Moines, Iowa 50307-3382.

I. PROGRAM DESCRIPTION

Chapter I of the Education Consolidation and Improvement Act of 1981 provides financial assistance to local education agencies for programs to meet the special educational needs of educationally deprived children. Children are eligible for the program if they come from areas with high concentrations of low income families and their academic performance is below acceptable levels.

The Des Moines district, utilizing Title I funds, initiated a supplementary reading program during the 1965-66 school year and a supplementary mathematics program during the 1972-73 school year. The impetus for the programs was the significant number of students performing below desired levels on the Iowa Tests of Basic Skills.

In February, 1981, the National Dissemination Review Board awarded exemplary status to the Des Moines Title I Mathematics program (Grades 2-6). This status indicates the program was effective in providing compensatory mathematics services and could be used as a model for other school districts to develop similar programs. Exemplary status was renewed in January 1985, and the program was granted $56,500 by the National Diffusion Network for use during 1985-1986 to disseminate the program model to school districts in other areas of the country. The project is known as the Success Understanding Mathematics program (SUM).

During the 1985-86 school year, the district employed a fulltime equivalent staff of 25.2 teachers, 1.0 coordinators and a 0.5 consultant to provide Chapter I mathematics services for Grades 1-8.

The program was located in 17 public elementary schools and 5 transitional schools. Students from 5 nonpublic buildings were also served at several sites. Grades served in individual buildings varied according to available space and the organization of the school.

Student Selection

Students, grades 2-5, were identified according to their performance on the district's objectives based mathematics tests; the math composite score of the ITBS, and results of the math folder tests. Students were ranked in order of need according to the number of objectives passed on the math folder tests. The students passing the least number of objectives were identified as those in greatest need. Classroom teachers could also recommend students for the program. These students were then given the math folder tests appropriate for their grade level. On the basis of their performances these students were also included in the rank order. First grade students were identified on the basis of their performance on the kindergarten Metropolitan Readiness Test and Piagetian tasks.

Chapter I regulations stipulate conditions under which students cannot be served. These conditions are listed in the Needs Assessment Checklist. Additionally, priorities were established by grade level. Students in the elementary program were selected according to the following grade level order: 2-3-4-5-1. In the secondary program the grade order was 6-7-8. The prioritization of grade levels at which students are served is based on the number of students in greatest need at each level.

Major Methods and Activities in the Instructional Program

The basic philosophy underlying the project was that Chapter I students are capable of learning. In applying this principle, the Chapter I staff was responsible for assessing each student's weaknesses and

providing remedial instruction in those areas. Weaknesses (and strengths) were identified with the district's mathematics objectives based tests. These tests are based on the district's mathematics objectives for Grades K-8. Each student had an educational plan to guide instruction and to provide a continuous record of concepts introduced and mastered by the student. The educational plan stays with the student throughout his or her involvement in the elementary Chapter I Mathematics program.

The primary method of instruction used manipulative devices (blocks, beads, coins, etc.) to develop concepts. As the students recorded the results of their experiments with the manipulatives, they discovered arithmetic algorithms. Games and other activities were used to reinforce the learned concepts.

Organization for Instruction

Approximately 40 students were served daily by each fulltime teacher. The students received direct mathematics instruction from both the classroom teacher and the Chapter I teacher. Chapter I teachers instructed small groups of students; maximum group size did not exceed six per teacher in elementary schools and an average of eight per teacher in secondary schools. The location was in either the classroom or another designated area.

At the elementary level each group received a minimum of 100 minutes of Chapter I mathematics instruction per week. This time could have been taken from any class other than mathematics or reading. It could have been taken from the mathematics class if the students were grouped by ability for mathematics instruction.

At the secondary level students received an average of 125 minutes per week of instruction from the Chapter I teacher. This time was taken from any class other than mathematics or reading. Chapter I teachers could team teach in the classroom with the district mathematics teacher whose classes included a group of students who scored at or below the 40th percentile. Where Chapter 1 teachers could serve more than 40 students, they were required to maintain individual educational plans on only the 40 students assigned to them.

Parent Contact and Participation

Parents were involved in the program through participation in parent advisory council activities. A district council provided a mechanism to disseminate copies of the Chapter I regulations, program proposals, program evaluations, and information about program learning strategies. The council, whose membership consisted of parents of Chapter I students, teachers (Chapter I and classroom) and community members, also provided a means for parents to make comments and suggestions about the Chapter I program.

Parents were also involved by the Chapter I staff through personal contacts. The program teachers visited homes, wrote letters, made telephone calls and planned and implemented activities for parents at each Chapter I school. Parents were also encouraged to visit Chapter I classes to become aware of the Chapter I program and of their children's performance in the program.

II. BUDGET AND EXPENDITURES

Figure I lists the budgeted and expended funds for the Chapter I Mathematics Project for fiscal year 1985. The figures are summarized from data provided by the Supervisor of Chapter I programs (see Appendix A).

Figure I
Chapter I Mathematics Project

Category	Amount Budgeted	Amount Expended*
General Administration	$ 28,247.00	$ 25,308.00
Indirect Charges	57,292.00	57,292.00
Professional Salaries	610,053.00	610,053.00
Substitutes	6,292.00	2,092.00
Classified Salaries	12,729.00	11,729.00
Fixed Charges		
Supplies and Materials	3,604.00	3,372.00
Evaluation	3,571.00	3,571.00
Professional Services	2,846.00	1,395.00
-- Inservice		
-- Travel for Conferences		
District Parent Advisory Council	1,562.00	779.00
Telephone	1,523.00	1,091.00
Mileage	2,169.00	826.00
-- Coordinator		
-- Teachers		
TOTAL	$885,886.00	$873,506.00

*Expended as of July 1, 1986 (except salaries, which accrued).

The budget figures for the secondary Chapter I program included data for both the reading and mathematics programs. In order to enable reporting of dollars budgeted and expended for the entire mathematics program, i.e, elementary and secondary, the secondary mathematics dollars were computed for each line item as 52.3 percent of the total for secondary reading and mathematics. The rationale for using this method is that the secondary mathematics teaching staff constitutes 52.3 percent of the total teaching staff for the secondary program.

As can be seen from Figure 1 expenditures for Chapter I Mathematics totaled $873,506.00, approximately 98.6 percent of the amount budgeted. Cost per pupil for the 1,008 students was approximately $866.57. This compares to a cost of $828.50 in 1984-85.

Further budgetary information may be found in Appendix A of this report.

III. RESULTS OF EVALUATION

The evaluation of the Chapter I Mathematics program was based on 16 performance and process objectives selected from the project proposal submitted to the Iowa Department of Public Instruction.

Accountability files were prepared to facilitate the collection of documentation for program objectives. The Chapter I program evaluator received documentation of these activities on a monthly basis during the year. In this report objectives that were monitored are quoted and are followed by narratives describing the extent to which they were achieved.

Administration Process Objective

IIB1. Elementary Principals

> By November 29, 1985, the principal of each elementary school served by the project shall monitor the joint activities of the project teachers and classroom teachers. He/she will visit classrooms to assure that Chapter I students are receiving direct instruction in mathematics from the classroom teacher as well as from the Chapter I teacher.
>
> Documentation: Report of supervision of the Chapter I program submitted by December 6, 1985, to the Executive Director of Elementary Education (public) or to the Superintendent, Des Moines Diocese (non public).

Principals of Chapter I buildings were required to visit classrooms in which Chapter I students were enrolled by the end of November 1985 to assure that these students were receiving direct mathematics instruction from the classroom teacher. The principal also checked at this time whether joint planning between the classroom and Chapter I teacher was occurring on a regular basis. A form entitled Principal's Report of Chapter I Instruction is used by the principal to record observations and write comments. A copy of the form appears in Appendix B of this report.

While in several cases the observation forms were not received until after the due date of December 6, 1985, the actual observations were reported to have occurred by November 29. In one case, it was not clear whether the principal had observed a regular classroom or a Chapter I classroom.

In all observation reports principals verified by signature that Chapter I students were receiving direct mathematics instruction from classroom teachers. Several principals provided written comments usually referring to the effectiveness of the planning process between the Chapter I and the classroom teacher. This objective was achieved.

Student Performance Objectives

IIIA1. At the end of the instruction year, students (grades 1-8) enrolled in the mathematics program for a minimum of 80 days will demonstrate an increase in the mean percentile rank from pre to posttest on the mathematics composite score of the selected evaluation instrument.*

Documentation: Scores submitted to the Director of Evaluation at the end of the project year.

IIIA2. At the end of the instruction year, students (grades 2-8) will demonstrate a proficiency on the mathematics composite score of the selected evaluation instrument such that the average gain in NCEs will be at least 5.0.

Documentation: Scores submitted to the Director of Evaluation at the end of the project year.

IIIA3. At the end of the instruction year, students enrolled at least 80 days will demonstrate a proficiency on the selected evaluation instrument such that 55% of the students will average a gain of three NCE's.

Documentation: Scores submitted to the Director of Evaluation at the end of the project year.

* Metropolitan Achievement Test (MAT)
California Achievement Test (CAT)
Iowa Test of Basic Skills (ITBS)

IIIA4. At the end of the instruction year, students enrolled in the mathematics program for at least 80 days will demonstrate a proficiency on the mathematics composite score of the selected evaluation instrument such that the average gain for grade 2-5 in NCEs will be at least 6.0.

Documentation: Scores submitted to the Director of Evaluation at the end of the project year.

IIIA5. At the end of the instruction year, students enrolled in the mathematics program for at least 80 days will demonstrate a proficiency on the mathematic composite score of the selected evaluation instrument such that the average gain for grades 6-8 in NCEs will be at lease 3.0.

Documentation: Scores submitted to the Director of Evaluation at the end of the project year.

Tables 1 and 2 below present the data necessary to evaluate objectives IIIA1 - IIIA5.

TABLE I
TOTAL MATHEMATICS SCORE
IOWA TESTS OF BASIC SKILLS
GRADES 1 - 8 (PERCENTILE RANK)

GRADE	N	PRE	POST	GAIN
1	43	13	29	+ 16
2	161	11	19	+ 8
3	102	14	26	+ 12
4	64	21	39	+ 18
5	90	23	38	+ 15
6	57	16	20	+ 4
7	51	19	30	+ 11
8	67	23	27	+ 4

TABLE 2
TOTAL MATHEMATICS SCORE
IOWA TESTS OF BASIC SKILLS*
GRADES 1 - 8 (NCE)

GRADE	N	PRE	POST	GAIN
1	43	26.7	38.6	+11.9
2	161	24.3	31.2	+ 6.8
3	102	27.6	36.5	+ 8.9
4	64	33.1	44.2	+11.1
5	90	34.7	43.3	+ 8.6
6	57	29.1	32.2	+ 3.2
7	51	31.4	39.0	+ 7.6
8	67	34.5	36.9	+ 2.3
Weighted 1 - 8 Average	635	29.4	36.9	+7.5

*Some students in grades 1, 4 and 6 completed the California Achievement Test or Metropolitan Achievement Test rather than the ITBS as part of a pilot program. Their NCE scores are included with the data in Table 2.

Objective IIIA1

Objective IIIA1 states that students in grades 1 - 8 would demonstrate an increase in percentile rank from pre to posttesting in the total math, or math commposite score. This objective was achieved. Percentile ranks increased at each grade level, the largest being 18 units at grade 4 .

Objective IIIA2

The NCE or Normal Curve Equivalent scale has been used as the metric for reporting gain scores in Chapter I programs for the past several years. It is a scale that is similar in some respects to the percentile rank scale, but is different in that the distance between units at all points on the scale is composed of equal intervals. This property makes it superior to the percentile rank in measuring a change (gain or loss) between pre and posttesting because a specified amount of change represents the same amount of growth no matter where on the scale it occurs. The equal interval property also allows for the

averaging of scores, which is not meaningful with the unequal interval percentile scale.

Data gathered regarding objective IIIA2 show that students in grades 2 - 8 clearly surpassed the criterion of a 5.0 NCE gain in total math. The pre/post NCE gain for the 592 students in these grades was 7.2 NCE units.

Objective IIIA3

Object IIIA3 states as a criterion that 55 percent of the students in grade 1 will demonstrate a gain of at least 3.0 NCE units between pre and posttesting in the composite (total math) score. The 1985-86 school year was the first in the recent past in which first grade students have been included in the evaluation data. As the computer program that analyzes the data is set up to calculate scores by grade and building only, a change in the program will be necessary in order to count the number of students in a grade who gained a certain amount. Nonetheless, it is possible to examine the average gain made by all first grade students and gain some insight into the attainment of this objective. As the average gain in NCE units made by first grade students was 11.9 in the total math score, it can be strongly suggested that at least 55 percent would have achieved a gain of at least 3.0 (in order to attain an average of 11.9).

It is recommended that this objective be revised so the criterion for its achievement is specified as an average gain (as for other grades). This would be a less costly solution than modifying the program to generate data in a different format for only one grade.

Objective IIIA4

This objective states that students in grades 2 through 5 would achieve an average gain of 6.0 NCE units in the total mathematics score. The average NCE gain (a weighted average is computed to allow averaging of groups that are not equal in size) for grades 2 through 5 was 8.4. This objective was achieved.

Objective IIIA5

This objective states that students in grades 6 - 8 would achieve an average NCE gain of 3.0 units. The 175 students in grades 6, 7 and 8 who had taken both the pre and posttest displayed an average NCE gain of 4.2. This objective was achieved.

IIIA6. Students (grades 1-8) enrolled in the program a minimum of 80 days will exhibit knowledge of mathematics by demonstrating mastery of 80% of the objectives presented to them.

Documentation: A completed Student Record Folder for each student served on file in each building and the Educational Plan Summary Report submitted to the project coordinators at the end of each semester.

Table 3 contains the information necessary for the evaluation of Objective IIIA6.

TABLE 3
Math Objectives Introduced and Attained

Grade	N	Average Number of Objectives Introduced	Percent Attended
1	72	26	82.3
2	203	38	83.3
3	138	42	83.3
4	107	40	81.7
5	123	43	84.2
6	129	46	76.4
7	117	62	82.3
8	93	62	82.0
1-8	982	45	81.9

According to the table, 81.9 percent of the objectives introduced to students enrolled 80 days or more were mastered. Students met the 80 percent criterion at all grade levels with the exception of 6th. In both the 1983-84 and 1984-85 school years, students in grades 7 and 8 attained a mastery level lower than 80 percent. The data submitted from 1985-86, however, indicated improvement at these levels sufficient to surpass the criterion level. This objective was achieved.

IIIA7. By the end of the project year, public school students (grades 6-8) enrolled in the program for a minimum of 80 days will display a more positive attitude toward learning than they displayed at the time of their entrance into the program.

DOCUMENTATION: Pre and post Attitude Toward Learning summary submitted to the Director of Evaluation at the end of the project year.

Attitude toward learning displayed by transitional school students was measured by a scale developed at Heartland Area Education Agency. A copy of the scale appears in Appendix C. It was designed to assess attitudes toward learning of individuals above grade 5.

Only students who completed the scale at both administrations (fall/spring) were included in the data. Table 4 below indicates that the raw score increase for all students was 0.40. The largest increase for students at a single building was 0.76 at Hiatt. This objective was achieved.

TABLE 4
Self Anchoring Attitude Scale Results

School	N	Pre Raw	Post Raw	Gain
Callanan	21	6.38	6.62	+0.24
Harding	50	6.60	7.20	+0.60
Hiatt	34	5.68	6.44	+0.76
Hoyt	62	6.81	7.08	+0.27
Weeks	38	5.66	5.76	+0.10
Total	205	6.31	6.71	+0.40

IIIA8. During the project year, public school students (grades 6-8) enrolled in the program for a minimum of 80 days will respond positively to the program as indicated by their rate of attendance being equal to or greater than that of all non-Chapter I students in the same schools.

DOCUMENTATION: Chapter I Attendance and Parent Contact Form submitted with the May accountability data to the Secondary Coordinator and the Director of Evaluation.

Table 5 below reports attendance of Chapter I students compared to that of non-Chapter I students in the same buildings. The attendance percent refers to the ratio of the number of days actually attended to the number of days possible for attendance.

TABLE 5
Chapter I Mathematics
Attendance Data, Grades 6-8

School	Chapter I Students N	Chapter I Students Attendance Percent	Non-Chapter I Students N	Non-Chapter I Students Attendance Percent
Callanan	38	84.8	539	93.1
Harding	82	89.4	662	93.0
Hiatt	58	87.7	539	93.1
Hoyt	75	91.0	479	93.7
Weeks	64	91.4	707	92.6
Total	317	89.3	2,926	92.9

The attendance rate for Chapter I secondary students was lower than that for non-Chapter I students at the same buildings. Chapter I students attended school 89.3 percent of the days possible compared to 92.9 percent of the non-Chapter I students. The difference in the rate of attendance between Chapter I and non-Chapter I students is 3.6 percent as compared to a difference of 2.7 percent in 1984-85.

It is recommended that the Chapter I Secondary Mathematics Program continue to provide emphasis in the area of improvement of student attendance with the goal of closing the gap between the attendance rates of program and non-program students at the same buildings. This objective was not achieved.

Instructional Staff Process Objectives

IVB1. The project teacher(s) in each building served by the program will identify eligible student participants by September 20, 1985.

Documentation: Class lists of identified students and the eligibility checklist submitted to the project coordinator with the September accountability data.

Selection of students was made by Chapter I teachers by the date specified. A list of selected students was computer generated on the basis of the Chapter I Pupil Information Form completed by each teacher for each student. This list was updated monthly. Table 6 shows the number of students served by grade and building according to class lists produced on October 28, 1985, the date that the first run was made. It should be noted that the numbers that appear in the table reflect the enrollment only on that date.

TABLE 6

Number of Students Served
Chapter I Mathematics
(on October 28, 1985)

School	Grade Level								Total
	1	2	3	4	5	6	7	8	
Brooks		11	13	5	12				41
Edmunds		4	9	9	15				37
Findley	5	3	5	4	5				22
Howe	6	13	10	5	5				39
King	22	26							48
Longfellow		16	10	10	6				42
Lucas	14	10	7	6	13				50
Madison		12	6	5	5				28
McKinley		22	13	4	6				45
Monroe			8	4	11				23
Moulton		12	12	9	8				41
Oak Park	5	16	6	5	8				40
Perkins			13	8	16				37
Rice		18							18
Stowe		9	9	9	5				32
Wallace	14	10	8	8					40
Willard	14	10	9	6					39
Callanan						15	15	9	39
Harding						31	31	30	92
Hiatt						16	14	23	53
Hoyt						26	28	18	72
Weeks						24	21	17	62
All Schools	52	200	141	100	129	112	109	97	940

As can be seen from Table 6, 940 students in grades 1-8 were served in the Chapter I Mathematics Program on October 28, 1985. Service was provided at 22 buildings, 6 of which provided servce to students attending 5 non-public buildings. Each teacher also submitted an eligibility checklist indicating the reason(s) why eligible students were not served. This objective was achieved.

IVB2. By the end of the first semester, Chapter I project teachers will have had personal conferences at home or a place selected by the parent of at least 80% of the total number of students (grades 1-5) enrolled in the program for a minimum of 20 days.

Documentation: Chapter I Attendance and Parent Contact Form submitted to the appropriate project coordinator, the building principal, and the Department of Evaluation with the January accountability data.

IVB3. By the end of the first semester, project teachers will have had personal contact and/or conference with parent(s) of at least 80% of the total number of students (grades 6-8) enrolled in the program for a minimum of 20 days.

Documentation: Chapter I attendance and Parent Contact Form submitted to the appropriate project coordinator, the building principal, and the Department of Evaluation with the January accountability data.

IVB4. By the end of the second semester each project teacher will have had a personal conference (at home, school, or by telephone) with the parent(s) of at least 80% of the total number of students (grades 1-8) whom he/she has served a minimum of 20 days during the second semester.

Documentation: Chapter I Attendance and Parent Contact Form submitted to the appropriate project coordinator, the building principal, and the Department of Evaluation with the May accountability data.

Objectives IVB2, 3 and 4 relate to contacts made by Chapter I teachers with parents of Chapter I mathematics students. Table 7 presents data for contacts made with parents of students at the elementary and transitional level during the first and second semesters.

TABLE 7
Parent Contacts
Chapter I Mathematics
1985-86

First Semester			Second Semester		
Grade	Number of Students	Percent of Personal Contacts	Grade	Number of Students	Percent of Personal Contacts
1-5	662	84.4	1-8	996	81.0
6-8	335	73.0			

During the first semester parent contacts were tabulated separately for elementary (grades 1-5) and transitional students (grades 6-8) although the criterion was the same for both levels, stating that parents of 80 percent of the students would be contacted personally. A personal contact during the first semester consisted of a visit to the home or a conference at school or other location. Contacts made by telephone to the home counted as personal contacts during the first semester for students in grades 6-8 only. As shown by Table 7, parents of 84.4 percent of students in grades 1-5 and 73.0 percent of students in grades 6-8 were contacted. Objective IVB2 applying to the elementary program was achieved. Objective IVB3, however, was not achieved as parents of only 73.0 percent of the students in grades 6-8 were contacted.

During the second semester, telephone calls made to the home also counted as personal contacts for students in all grades in addition to the other methods. During this time period, parents of 81.0 percent of the students were contacted thereby achieving objective IVB4.

The total number of contacts with parents reported by Chapter I teachers (including cases where more than one contact was made with the same parent) was 1,213 during the first semester and 996 during the second semester for a grand total of 1,309. While Chapter I teachers are to be commended for their efforts in establishing contacts with parents

of students served, it is recommended that steps be taken to improve the rate of contact with parents of students at the secondary level (grades 6-8) so that the established criterion level is met.

IVB5. By October 11, 1985 Chapter I Secondary teachers will have met with and planned with appropriate building personnel in the effort to coordinate planned activities with Chapter I parents.

Documentation: Parent Activity Planning Sheet submitted to appropriate coordinator.

A variety of activities were planned for the purpose of providing information and materials to parents of Chapter I students attending the transitional schools. "Parent Activity Planning Sheets" were submitted from all 6 transitional schools that described from one to three separate activities for each building. Many of the activities occurred during the same time periods as did open houses or conference days. While the activities were conducted as early as September, 1985 and as late as May 1986, the documentation submitted did not relate when the planning for the activities occurred. It is therefore impossible to determine whether or not planning with appropriate personel occurred by October 11, 1985. It is recommended that if the time at which activities are planned at the building is deemed important, the reporting form be revised to allow for reporting this information. It was not possible to determine whether or not this objective was achieved.

IVB6. By October 4, 1985 Chapter I teachers at each building will submit the name of a parent to be a representative on the Chapter I District Advisory Council.

Documentation: Parent name submitted to the Chapter I Supervisor.

A list of names of representatives to the Chapter I District Parent Advisory council was sent to the Department of Evaluation, Research and Testing by October 4, 1985. All Chapter I buildings with the exception of Metro Transitional School named a representative to the council. Minutes of advisory council meetings were sent to the Department of Evaluation, Research and Testing several times during the school year. This objective was achieved.

Family Process Objective

VIIB1. Near the end of the project year a random sample of parents of identified Chapter I students will respond positively to the project activities.

Documentation: A summary of responses obtained by the Department of Evaluation on the parent questionnaire.

A copy of the parent questionnaire sent to a random sample of 25 percent of the parents of Chapter I students appears in Appendix D. The questionnaire was sent in May 1986 via U. S. mail to approximately 490 addressees. A total of 57 useable questionnaires (11.6%) were returned. The return rate of 11.6 percent of a 25 percent sample calculates to only about 2.9 percent of the Chapter I parent population. Evaluative conclusions cannot be drawn from such a low return rate.

As mentioned, the return rate for this survey was not sufficient to draw conclusions from the results. Return rates for this instrument or a facsimile of it have been similar in several past years. The charges for printing, postage, and supplies necessary to send this survey currently are estimated to be nearly $200.00 annually. Labor costs are probably even higher. It is recommended at this time that the Supervisor of Chapter I Programs examine the need to administer the parent survey on an annual basis in lieu of the information received and costs involved. Possible options might include administration on less than an annual basis or elimination.

IV COMMENTS

1. Students in grades 2-8 surpassed the criterion for gains in the total mathematics score on the Iowa Test of Basic Skills. Between pre and posttesting, students displayed an increase of 7.2 Normal Curve Equivalent units in the composite mathematics score. This increase compared to the criterion of 5.0 NCE unit gain. (The Normal Curve Equivalent or NCE is a scale much like the percentile scale except it is based on equal intervals between each unit, making it more accurate in measuring "gains").
2. Students in grades 1 - 8 achieved 81.9 percent of the objectives introduced to them in their educational plans. The educational plan developed for each student is the foundation on which each pupil's Chapter I instruction is based. The criterion level expressed in the proposal is that students will achieve 80 percent of the objectives presented.
3. Contact with parents of Chapter I students has been an integral part of this program since its inception. Chapter I teachers made a grand total of 1,309 contacts with parents of students in 1985-86 and are to be commended for their efforts in this area.
4. The 1985-86 school year was the first in the recent past that first grade students were administered the standardized evaluation instrument. This group of students fared extremely well, demonstrating an increase of 11.9 NCE units between pre and posttesting.

RECOMMENDATIONS

1. The program objective that deals with performance of first grade students on the Iowa Tests of Basic Skills should be revised to express a criterion for attainment consistent with those at other grade levels. This would require specifying the "average gain" to be obtained rather than a percentage of the students that will reach a certain level. The average gain will best provide information on the entire population rather than only those students who achieved a certain score.
2. Steps should be taken to improve the rate of attendance of students in the secondary program. The rate of attendance for program students in grades 6 - 8 continues to fall below the rate for nonprogram students at the same buildings though the proposal states that the Chapter I students should be attending at a rate equal to or higher than non Chapter I students.
3. Stronger emphasis should be applied in the area of contacts with parents of students at the transitional level. During the first semester parents of 73.0 percent of the students in grades 6 - 8 were contacted personally compared to a criterion of 80 percent. This represents a decline in the rate of contacts made to parents of students at this level from the 1984-85 school year when the rate was 78.4.
4. The form for documenting parent activities planned by Chapter I secondary teachers or the objective related to these should be revised. The present reporting form does not provide for collection of the information necessary to evaluate the objective as written.

5. The Supervisor of Chapter I Programs should examine the need to administer the Chapter I Parent Survey based on the information received and costs involved. Possible options might include administration on less than an annual basis or elimination.

APPENDIX A

BUDGET AND EXPENDITURES

General Administration Costs
1985-86

		Budgeted	Expended *
Salaries			
Supervisor		$ 32,650	$ 32,650
1.0 Secretary			
Temporary			
Fixed Charges			
Travel		7,663	7,663
Supplies and Materials		1,500	801
General supplies and data forms		3,550	2,050
Graphic arts supplies	3,350		
Graphic Arts Service	200		
Mileage		2,100	1,000
Data Processing		400	196
Computer maintenance		7,500	4,665
CPU time	1,000		
Line rental	2,500		
Programming costs	1,500		
Copier maintenance	2,000		
Equipment	500		
Printing		0	1,500
Audit		1,500	1,198
Dissemination		1,000	1,000
AEA Contracted Service (Juvenile Home/Meyer Hall)		2,700	3,000
		7,267	7,267
Totals		$ 67,830	$ 60,773

* Expended as of July 1, 1986 (except salaries, which accrued)

Evaluation Costs
1985-86

	Budgeted	Expended *
Travel and Mileage	$ 500	$ 500
Materials and Supplies	4,920	4,920
Data Processing	3,155	3,155
CPU Time	2,085	
Maintenance and rental	550	
Tapes and test data	520	
Totals	8,575	8,575

* Expended as of July 1, 1986 (except salaries, which accrued)

Elementary Reading Costs
1985-86

	Budgeted	Expended *
General Administration	$ 30,524	$ 27,348
Parent Advisory Council	1,650	843
Evaluation	3,859	3,859
Indirect Charges	61,909	61,909
Certified Salaries	687,508	687,508
.5 Coordinator .4 Consultant 27.1 Teachers		
Substitute Teachers	5,775	50
Classified Salaries	7,238	6,238
.5 Secretary Temporary		
Fixed Charges	170,423	170,423
Supplies and Materials (Printing)	1,042	9,016**
Professional Services	2,670	2,768
Inservice Travel for conferences		
Telephone	1,000	991
Mileage	1,350	546
Coordinator Consultant Teachers		
Totals	$ 974,948	$ 971,499

Cost per student (971,499 / 1084): $896

* Expended as of July 1, 1986 (except salaries, which accrued)
** Includes $6,284 for Writing to Read implementation

Elementary Math Costs
1985-86

	Budgeted	Expended *
General Administration	$ 18,314	$ 16,409
Parent Advisory Council	1,013	505
Evaluation	2,315	2,315
Indirect Charges	37,146	37,146
Certified Salaries	413,138	413,138
.5 Coordinator .5 Consultant 16.6 Teachers		
Substitute Teachers	4,200	0
Classified Salaries	7,238	6,238
.5 Secretary Temporary		
Fixed Charges	105,130	105,130
Supplies and Materials (Printing)	2,286	2,161
Professional Services	1,800	502
Inservice Travel for conferences		
Telephone	1,000	660
Mileage	1,450	538
Coordinator Consultant Teachers		
Totals	$ 595,030	$ 584,742

Cost per student (584,742 / 664): $881

* Expended as of July 1, 1986 (except salaries, which accrued)

Secondary Costs
1985-86

	Budgeted	Expended *
General Administration	$ 18,992	$ 17,016
Parent Advisory Council	1,050	524
Evaluation	2,401	2,401
Indirect Charges	38,521	38,521
Certified Salaries	376,511	376,511
17.4 Teachers Coordinator		
Substitute Teachers	4,000	4,000
Classified Salaries	10,500	10,500
1.0 Secretary		
Fixed Charges	97,263	97,263
Supplies and Materials (Printing)	2,520	2,315
Professional Services	2,000	1,707
Inservice Travel for conferences		
Telephone	1,000	825
Mileage	1,375	551
Coordinator Teachers		
Totals	$ 556,133	$ 552,134

Cost per student (552,134 / 748): $738

* Expended as of July 1, 1986 (except salaries, which accrued)

Cost Summary
1985-86

	Budgeted	Expended
Indirect Charges	$ 137,576	$ 137,576
Parent Advisory Council	$ 3,750	$ 1,872
Evaluation	$ 8,575	$ 8,575
General Administration	$ 67,830	$ 60,773

	Elementary Reading		Elementary Mathematics		Secondary Reading and Mathematics	
	27.1 FTE		16.6 FTE		17.4 FTE	
	45 %		27 %		28 %	
	Budgeted	Expended	Budgeted	Expended	Budgeted	Expended
Advisory Council	1,687	843	1,013	505	1,050	524
tion	3,859	3,859	2,315	2,315	2,401	2,401
ct Charges	61,909	61,909	37,146	37,146	38,521	38,521
l Administration	30,524	27,348	18,314	16,409	18,992	17,016

APPENDIX B

PRINCIPAL'S REPORT OF CHAPTER I INSTRUCTION

School _____

Date _____

PRINCIPAL'S REPORT OF CHAPTER I INSTRUCTION

On Coordination of Classroom Teachers' and Chapter I Teacher's Instruction

_____
Principal's Signature

Classroom Teacher	Visitation		Direct Instruction to Chapter I Students		JOINT PLANNING		COMMENTS:
	Date	Time	Yes	No	Yes	No	

Due by _____

One copy to Executive Director, Elementary Education; one copy to Chapter 1 Program Coordinator.

Re 9/83

APPENDIX C

SELF-ANCHORING ATTITUDE SCALE

PRE-TEST INSTRUCTIONS

INSTRUCTIONS FOR THE ADMINISTRATION OF

SAAS: SELF-ANCHORING ATTITUDE SCALE (TOWARD LEARNING)

INTRODUCTION

The Self-Anchoring Attitude Scale (Toward Learning) is an inventory designed to assess attitudes toward learning of individuals in Grade 5 through adult. SAAS is unique in that each individual is asked to describe the end-points of the dimension under examination -- in this case attitude toward learning. This self-defined continuum is then used as a measuring device with no further verbal cues.

DIRECTIONS

Check that all students have a pencil or a pen and one blank sheet of paper. To get off to a good start, it is suggested to say something like this.

> "Today I am going to ask you about students who like to learn and students who dislike to learn. I am interested in your ideas. This is not a test. There are no right or wrong answers. Not all students are the same. You may feel that some enjoy learning more than others. You may know students who like to learn and students who do not like to learn. Without saying anything to each other, spend the next 3-5 minutes thinking of what you would say about students who like to learn. To help you remember your ideas, write them down on the sheet of paper in front of you."

Allow 3-5 minutes for the students to complete this. When you are satisfied that they are finished, ask them to spend the next few minutes thinking of what they would say about students who dislike to learn. They can use the other side of the paper to jot down their ideas.

When they are finished, distribute the SAAS form to each student with the "ladder" side showing. Ask them to write their ideas for "Students Who Like to Learn" at the top of the page in the space provided and their ideas for "Students Who Dislike to Learn" at the bottom of the page.

After all students have finished writing, say to the students:

> "At the left side of your paper is a picture of a ladder. Your description of students who like to learn is located at the top of the ladder and your description of students who dislike to learn is at the bottom.
>
> You may be at the top of the ladder -- that is, a student who likes to learn. Or you may be at the very bottom of the ladder -- a student who dislikes to learn. Quite possibly you are somewhere in between those who like to learn and those who dislike to learn.
>
> Take your pencil and mark an "X" on the run of the ladder where you think you are right now."

When you are satisfied that all students have finished, ask them to write in their name, school, grade, and the day's date in the space provided above the ladder. Also, have them write in their name in the top right hand corner of the form in the space provided.

Collect all the SAAS forms.

INSTRUCTIONS FOR THE POST-TEST ADMINISTRATION OF

SAAS: SELF-ANCHORING ATTITUDE SCALE (TOWARD LEARNING)

INFORMATION ABOUT SAAS

The Self-Anchoring Attitude Scale (Toward Learning) is an inventory designed to assess attitudes toward learning of individuals in Grade 5 through adult. SAAS is unique in that each individual is asked to describe the end-points of the dimmension under examination -- in this case attitude toward learning. This self-examintion continuum is then used as a measuring device with no further verbal cues.

DIRECTION

Check that all students have a pencil. Return the green SAAS form to the student who is identified on the form. The student's "fall rating" (the ladder having the student's first rating) should not be returned.

After all students have their original copy of the green SAAS form, say to the students:

> "Last fall you described students who like to learn and wrote that at the top of the page. You also described students who disliked to learn and you wrote that at the bottom of the page.
>
> Head these descriptions. You may be like the student at the top of the page -- you may be like the student at the bottom of the page -- or you

may be somewhere in between those who like to learn and those who dislike to learn.

Take your pencil and mark an X on the rung of the ladder where you think you are right now.

If you would like to write more about students who like to learn or students who dislike to learn, please do so. Write those comments and today's date beside any comments you add.

When you are satisfied that all students have finished, ask them to write their name, school, grade and the date in the space provided above the ladder.

Collect all the SAAS forms.

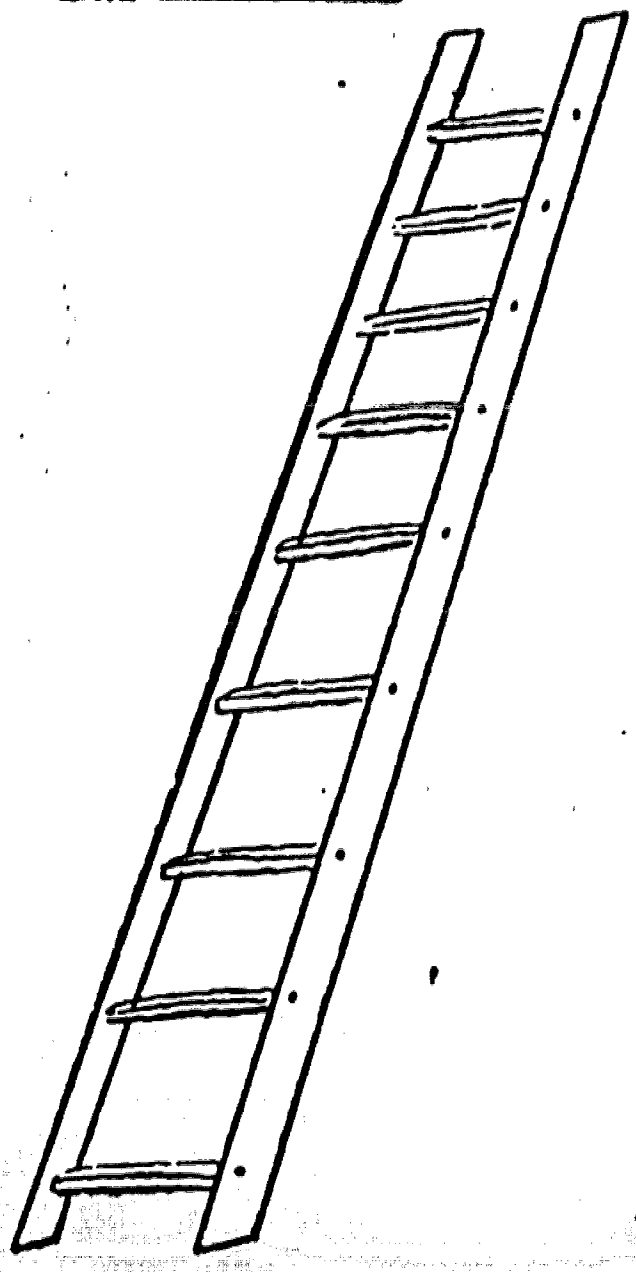
NAME _____

SCHOOL _____

GRADE _____

DATE _____

STUDENTS WHO LIKE TO LEARN



STUDENTS WHO DISLIKE TO LEARN

APPENDIX D

CHAPTER I PARENT SURVEY

CHAPTER 1 PARENT SURVEY

Please help us improve the Chapter 1 program by circling the number that best describes how you feel about each of the following statements.

	Yes	No	No opinion	Did not participate
I. Parent/Teacher Personal Contact				
A. Home Visits				
1. Home visits made by the Chapter 1 teacher gave me useful information about the Chapter 1 program.	1	2	3	4
2. Home visits made by the Chapter 1 teacher gave me useful information about my child.	1	2	3	4
3. Home visits provide an opportunity for my child's teacher and me to openly discuss the Chapter 1 program.	1	2	3	4
B. Conferences				
1. Scheduled school conferences with the Chapter 1 teacher are helpful to me.	1	2	3	4
2. Chapter 1-sponsored activities at the school have improved communication between home and school.	1	2	3	4
3. Telephone calls and letters received from Chapter 1 teachers gave me information about my child's progress.	1	2	3	4
II. Information				
A. Chapter 1 was explained to my satisfaction when my child was selected to be in the program.	1	2	3	
B. I received the Chapter 1 brochure and/or newsletters.	1	2	3	
C. The Chapter 1 brochure provides information about how the Chapter 1 program operates.	1	2	3	
D. The newsletter Close-up on Learning provides information about Chapter 1 activities at different schools.	1	2	3	
III. District Parent Advisory Council				
A. The District Parent Advisory Council provides an opportunity for members and community persons to receive important information about the rules and regulations concerning Chapter 1.	1	2	3	4
B. The District Parent Advisory Council provides an opportunity for members to express their concerns about the Chapter 1 program.	1	2	3	4

On the back of this sheet please make any comments regarding suggestions, ideas, or opinions you may have about Chapter 1 programs, advisory meetings, newsletters, brochures, or any other subject relating to Chapter 1.

THANKS!!