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ABSTRACT

Major conclusions highlighted in the summary of the 1980-81 ESEA Title I evaluation of the Austin (Texas) Independent School District are: using Title I and local funds to lower pupil/teacher ratios to 15:1 produced an effective compensatory education program: across grades, low-achieving students benefited more from lower pupil/teacher ratios than higher-achieving students: lowering the pupil/teacher ratio had a greater effect on quality of instructional time than on quantity of instructional time: schoolwide project teachers believed that project effectiveness would cease if pupil/teacher ratios exceeded 18:1: there was no evidence of a consistent, positive impact of the regular Title I Program on student achievement: by first grade, former Title I prekindergarten students were no longer scoring higher than their classmates: parents appreciated having specific, planned instructional activities to do with children at home: and Summer At-Home Program participants did not achieve more than their matched controls. The purpose, procedures, results, and appropriate communications, instructions and data for 5 of the 13 instruments (Peabody Picture Vocabulary Test, Boehm Test of Basic Concepts, Metropolitan Readiness Test, Iowa Test of Basic Skills and Prekindergarten Observations) used to provide the evaluation data are detailed in separate appendixes. (NEC)

OFFICE OF RESEARCH AND EVALUATION
AUSTIN INDEPENDENT SCHOOL DISTRICT

FINAL TECHNICAL REPORT

1980-81 ESEA Title I Regular Program

Volume I

June 30, 1981

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TABLE OF CONTENTS

Volume I

Volume II

ESEA Title I

FINAL REPORT SUMMARY

FINAL REPORT

Project Title: Title I

Contact Person: David Doss, Glynn Ligon

Major Positive Findings:

1. Students in schoolwide projects with a pupil/teacher ratio of 15 to 1 made impressive achievement gains.

   a. Low-achieving schoolwide project students gained the equivalent of two additional months of learning above the gains of comparable students in other schools.

   b. These gains were equivalent to a full year's achievement growth during 1980-81 compared to about eight months for comparable students.

   c. The high-achieving schoolwide project students made greater gains than comparable students at grades 3 and 5. At no grade did schoolwide project students score lower than the others.

   In addition, the teachers in schoolwide projects seemed to feel more in control of what happened to their students, and as a result, they felt more responsible for the success they saw them having.

2. Former Title I Early Childhood Program participants scored higher in basic skills upon entering kindergarten than the other students in their schools.

3. Parents were enthusiastic about working with their children on the Rainbow Kit activities. They requested more frequent activities and activities in other subject areas.

Major Findings Requiring Action:

1. The Title I Program does not seem to have a consistent, positive impact on student achievement across grades. Title I students outgained former Title I students currently attending non-Title I schools at grades 4 and 5. Former Title I students made greater gains at grade 1.

2. Wide variations occurred in the assignment of staff to Title I campuses. Base personnel costs per student served ranged from $214 to $486.

3. Total time spent in the basic skills/major content areas of reading/language arts, math, science, and social studies has decreased in Title I schools from the peak observed in 1977-78. The current levels are back to those observed in 1976-77. The area of reading/language arts has shown the same pattern as total basic skills.

4. The 1980 At-Home Summer Program did not significantly improve the achievement of participants compared to matched comparison students.

5. Title I pre-k students made smaller achievement gains this year than last year, but they still made above average gains.

6. While former pre-k students had scored higher than comparable students when entering kindergarten, they did not show an advantage when they entered first grade.

7. Classroom observations showed the ratio of time spent in reading and language arts to time spent in science and social studies to be about ten to one and eight to one respectively. On the average, AISD students spent about two hours and four minutes each day in reading/language arts, 39 minutes in math, 15 minutes in social studies, and 13 minutes in science.

Evaluation Summary:

ESEA Title I is the largest of the federally funded compensatory education programs. Its purpose is to provide supplemental instruction in the basic skills to low-achieving students in schools with high concentrations of children from low-income families. This year's Title I Program provided instruction to children in 24 District elementary schools, three nonpublic schools, and five institutions for neglected and/or delinquent children. In addition, Title I funded a home-based program for four-year-olds, all or part of nine prekindergarten classes, and a parental involvement component.

The future of compensatory education in Austin and the nation has been clouded by the recent change of administrations in Washington. It appears that the concept of block grants may provide school districts with greater flexibility in how compensatory programs are structured, but it also appears that the resources provided will diminish. Such a situation makes it imperative that the District begin now to plan a program that takes advantage of decreased regulation to provide a maximally effective program for our disadvantaged students.

Current findings which seem to have contributions to make to such a program are highlighted throughout this summary.

The results below are summarized by program components. Greater detail can be found in the 1980-81 ESEA Title I Technical Report, publication number 80.71.

TITLE I SCHOOLWIDE PROJECTS

WHAT ARE SCHOOLWIDE PROJECTS?

In most cases Title I instruction must be supplemental and may not supplant instruction that would normally be provided by the local district; i.e., Title I instruction must be above and beyond what other students in the school or in the district receive. Also, students must be identified for service using an objective assessment of academic need before they can be served. However, when the concentration of children from low-income families at a school exceeds 75%, the supplement-supplant provisions of the law may be relaxed.

Two AISD schools, Allison and Becker, met the 75% criterion in 1980-81. Title I and required matching local funds were used to reduce the pupil:teacher ratio to 15:1 in these schools. Figure 1 describes some of the major differences between the schoolwide projects and the regular Title I Program in AISD.

SCHOOLWIDE PROJECTS	REGULAR TITLE I SCHOOLS
1. Title I instruction is not identifiable as something apart from or supplemental to the foundation school program.	1. Title I instruction must be separate from and supplementary to the foundation program.
2. Teachers paid from Title I funds function as regular classroom teachers. They teach all subject areas.	2. Teachers paid from Title I funds act as supplemental reading teachers.
3. No students are identified to receive Title I instruction. The "Title I" teachers have classes of students of mixed achievement levels who do not differ from those of other teachers. No additional record keeping is required.	3. Students are identified and selection based on their achievement test scores. Title I teachers must serve only identified students and only in reading. A certain amount of time is spent in student selection and record keeping.
4. The pupil:teacher ratio is 15:1 for the entire school day.	4. The pupil:teacher ratio during Title I instruction (usually about 30 minutes a day) is a maximum of 8:1 for a teacher alone or 15:1 for a teacher and an aide.

Figure 1. SOME CHARACTERISTICS OF THE SCHOOLWIDE PROJECTS AND THE REGULAR TITLE I SCHOOLS.

HAVE THE SCHOOLWIDE PROJECTS BEEN EFFECTIVE IN RAISING STUDENT ACHIEVEMENT?

Yes, clearly. One side effect of the current desegregation plan was that over 2,200 students who were served in Title I in 1979-80 were assigned to schools this year that did not have a Title I program. The students at Allison and Becker were compared with students from these former Title I attendance areas and with students in regular Title I schools who live in traditional Title I attendance areas.

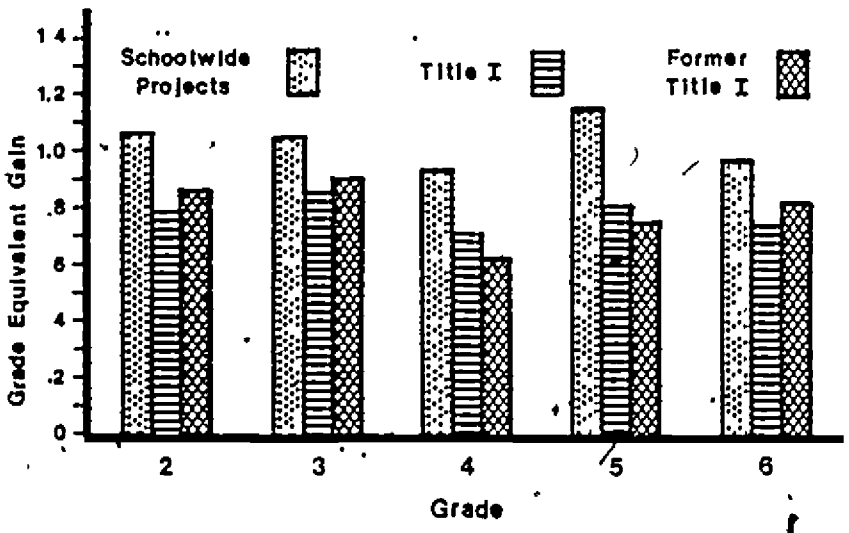


Figure 2. AVERAGE GRADE EQUIVALENT GAINS FOR SCHOOLWIDE PROJECT STUDENTS, TITLE I STUDENTS, AND FORMER TITLE I STUDENTS NOW IN SCHOOLS WITHOUT TITLE I. Students scoring below the 40th percentile on the pretest.

First, students scoring at or below the 40th percentile were compared. Figure 2 shows that *the schoolwide project students consistently outscored low achievers in both comparison groups.* On the average, they gained about two months more than the others from the pretest in April, 1980, to the posttest in April, 1981. More importantly, their gain was equal to one year's growth, 10 grade equivalent months. Normally, low-achieving students from low-income neighborhoods make only about a seven to nine month gain from spring to spring.

To state the results another way...

> . . .the achievement gains of low-achieving students in schoolwide projects were 25% greater than those of similar students served by the regular Title I Program. Over the school year, this approximates two additional months of instruction.

WHAT ABOUT HIGHER ACHIEVING STUDENTS IN THEIR SCHOOL?

Unfortunately, the same consistent pattern from grade to grade was not seen for students scoring above the 40th percentile. The schoolwide project students showed meaningfully greater gains only at grades 3 and 5.

It appears that the schoolwide projects benefit the lower-achieving students more than the higher-achieving ones.

It must be noted that the results for grades 1 and 2 at Becker have not been used in reaching these conclusions about achievement gains. The pattern of results obtained at these grades at Becker is unusual. Additional analyses and a thorough discussion with the principal have not produced a satisfactory explanation of why first graders have made very large gains, but in second grade their gain has been so small. At the end of the second year, their scores resemble the scores of similar students in other schools.

WHAT MIGHT ACCOUNT FOR THE SUCCESS OF THE SCHOOLWIDE PROJECTS?

How students spend their time and the amount of time they spend in instruction is important to learning. In order to look at how time was used in schoolwide projects compared to other settings, 352 formal, day-long observations were conducted in AISD schools at grades 2 and 5 this year, including 120 in schoolwide projects. Not surprisingly, the largest differences between schoolwide project students and others were related to group size. On the average, they worked in smaller groups than others, and spent much less time working in groups of 18 or more. They had more minutes of contact with their classroom teachers than students in other schools, and they also seemed to have slightly more reading instruction than students in Title I schools or schools with former Title I students. However, the difference in reading instruction was only about five to eight minutes a day.

The lack of dramatic differences between the groups in time use suggests that the schoolwide projects had a greater effect on the quality of instruction time than on its quantity.

Interviews revealed the Title I teachers, most of whom had worked previously as Title I reading teachers, to be enthusiastic supporters of the lower pupil:teacher ratio approach to Title I instruction. They generally saw all aspects of their jobs as improved. However, most improvements seemed to fall into one of three categories:

1. Improvements in Efficiency:

   - Routine tasks such as taking roll and grading papers took less time.

- The number of discipline problems and the time devoted to handling them were reduced.
- The teachers believed they could make better use of instructional time by seeing reading groups more than once a day or by having more and smaller reading groups.
- There were fewer interruptions without a Title I pull-out program.

2. Improvements in the Quality of Time:

- Teachers were able to better monitor the progress of each student. They believed that they could detect problems sooner and provide more and quicker corrective feedback.
- An increased closeness between the teachers and their students was also reported. As they got to know their students better, they felt more effective in their teaching.

3. Improvements in Teacher Morale:

- The greater closeness they felt with their students was rewarding in itself.
- The teachers seemed to feel more in control of what happened to the students in their classes. As a result, they felt more ownership for the progress of their students, and they felt more responsible for the success they saw their students having.

Whatever the factors which contribute to the effectiveness of the schoolwide projects may be, the teachers believed that they would cease to exist with a pupil:teacher ratio above 18:1

THE TITLE I READING IMPROVEMENT PROGRAM

HOW WERE STUDENTS SERVED BY THE REGULAR TITLE I PROGRAM?

The regular Title I Program served 3776 students in grades K-6 on 22 campuses. Eligible students were provided supplemental reading instruction by Title I teachers and/or instructional aides. Instruction was provided in the regular classroom, in the reading center or lab, or in both places. Figure 3 compares the number of students served in each instructional arrangement in 1979-80 and 1980-81.

Students Served...	Number		Percent	
	1979-80	1980-81	1979-80	1980-81
By Teacher Only	2,017	2,080	53	54
By Aide Only	679	438	18	11
By Both	1,120	1,308	29	34
In Lab Only	2,067	2,239	54	59
In Classroom Only	1,473	986	39	26
In Both	276	601	7	16
TOTAL	3,816	3,826	100	100

Figure 3. TITLE I INSTRUCTIONAL ARRANGEMENT, 1979-80 AND 1980-81.

An examination of the number of students served at a campus and the base salary costs for the teachers and aides placed on the campuses revealed a wide variation between campuses in the cost per student served -- from $214 to $486. About half of the variation is due to four factors. First, it is difficult to deliver a program at a low per-pupil cost when the number to be served is small. Second, the expenditures were based partly on a TEA requirement that greater amounts be spent at schools with higher percentages of low-income children. Third, some instructional arrangements required greater expenditures than others. Finally, at some schools the anticipated number of Title I students was greater than the number who eventually arrived leading to inflated pupil:teacher ratios. Regardless of its explanation, the wide variation in resource allocation from school to school would appear to be a problem worthy of serious consideration by the District.

The observation results for low-achieving students in Title I schools were compared to three groups; high-achieving students in Title I schools, low-achieving students on campuses with former Title I students but without Title I, and low-achieving students in schoolwide projects. The comparisons showed that low-achieving students on Title I campuses

...spent less time in their regular classroom and more time in the reading lab than students in other groups,

...had fewer minutes of contact with their classroom teacher than the low-achieving students in the schoolwide projects.

...had more minutes of contact with other teachers than the schoolwide project students and the high achievers in Title I schools,

...received no more reading instruction than the others, and

...may have spent more time off task than the schoolwide project students and the high-achievers in Title I schools.

Figure 4 shows that overall in Title I schools the total time spent in the basic skills major content areas of reading/language arts, math, science, and social studies has decreased from the peak observed in 1977-78. The ratio of time spent in reading/language arts to the time spent in science and social studies is about ten to one and eight to one respectively. AISD students spent about two hours and four minutes each day in reading/language arts, 39 minutes in math, 15 minutes in social studies, and 13 minutes in science.

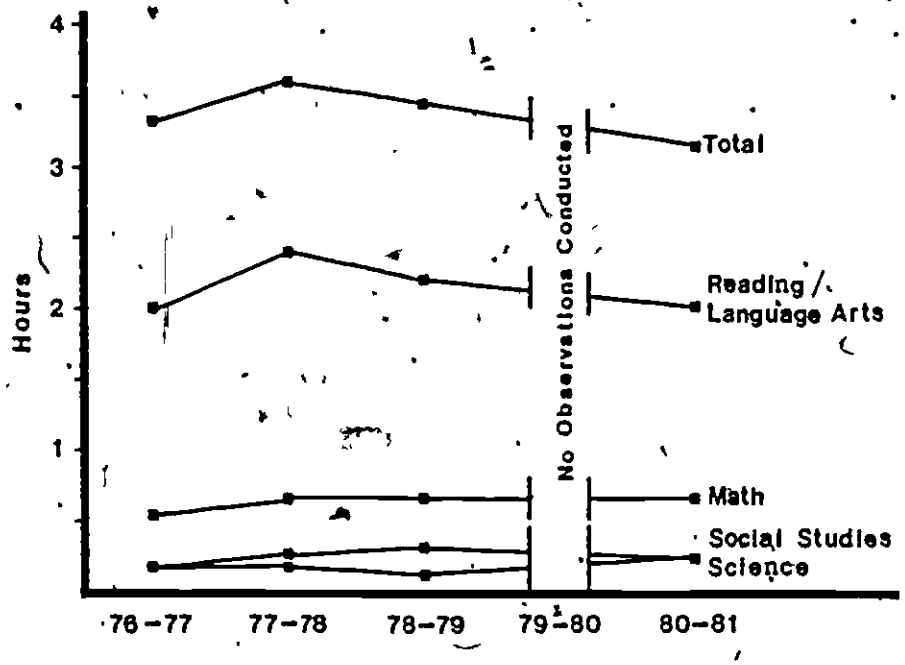


Figure 4. AMOUNT OF INSTRUCTIONAL TIME IN BASIC SKILLS IN TITLE I SCHOOLS.

DID THE REGULAR TITLE I PROGRAM SHOW POSITIVE ACHIEVEMENT RESULTS?

No. As previously mentioned, desegregation provided a rare opportunity for the achievement gains of Title I students to be compared with those made by similar students attending schools without a Title I Program. In other words, the opportunity existed to ask the question, "Do Title I students make achievement gains greater than they would if the program did not exist?" The answer appears to be "probably not."

The evaluation results provided no evidence of a consistent, positive impact of the Title I Program on student achievement. In fact, at some grades former Title I students currently attending schools without a Title I program outscored similar Title I students.

RAINBOW KITS

WHAT ARE RAINBOW KITS?

Title I piloted an instructional support program activity called Rainbow Kits this year. The kits are collections of 36 reading-related activities for parents and children. They were developed on four levels -- kindergarten, first grade, primary (grades 2 and 3) and inter-

mediate (grades 4-6). They are packaged in envelopes and designed to be sent home with the Title I children on a weekly basis throughout the school year. The families received a plastic file box to keep the activities in at home.

The Rainbow Kits were piloted at six schools with only about half of the total number of Title I students getting the kits. Such an arrangement provided participation and comparison groups for the evaluation.

Four questionnaires were sent home to the parents of the participants to learn if the kits were being received and used and to find out what the parents thought about using them. The parents who responded were very enthusiastic about using the kits. Almost 90% reported enjoying the work with their children either "Much" or "Very Much." This positive parental response is very similar to that received by the At-Home Program which Title I has used during the summer for several years.

It is apparent that large numbers of parents greatly appreciate having specific, planned instructional activities that they can do with their children at home.

The questionnaires revealed other interesting findings as well:

- About 90% of the parents would like their children to receive more than one activity a week. Reading, math, and language arts were the most favored subject areas.
- Title I students have homework about half of the time. It usually takes them half an hour or less to finish it.
- About a third of the parents reported other children also used the Rainbow Kit activities. They ranged in age from 2 to 15 and had an average age of about eight.
- The mothers worked with the children about 70% of the time. About 10% of the children worked with a brother or sister.
- The children watched about two and one half to three hours of television a day. The first graders seemed to watch less television than the others.

DID THE RAINBOW KITS IMPROVE STUDENT ACHIEVEMENT?

No, at least not yet. At no grade was there a difference in the gains made by the participants and the control groups. If involving parents in instructional activities has a general effect of increasing the parents' involvement in other, more significant educational activities, then perhaps programs like the Rainbow Kits may have a long-term payoff in achievement gains. At the least, it is a program that involves parents and their children in enjoyable instructional tasks.

TITLE I EARLY CHILDHOOD EDUCATION PROGRAM

WHAT IS THE TITLE I EARLY CHILDHOOD PROGRAM?

The Title I Program has a number of full-day early childhood classes for four-year-olds. During this, the third year of the program, Title I pre-k classes were located at Brown (2 classes), Maplewood, Norman, Ortega, Rosewood, and Sims. In addition, a class at Ridgetop, and a class at Rosewood were funded 50% by Title I and 50% by Title I Migrant.

DID THE TITLE I PREKINDERGARTEN PROGRAM CONTINUE TO SHOW THE LARGE ACHIEVEMENT GAINS OF PREVIOUS YEARS?

The Title I pre-k students continued to make gains that are greater than those of the average four-year-old; they also continued to outgain the Title I Migrant prekindergarten students and the Happy Talk Program participants, as illustrated in Figure 5. However, this year's gain was smaller than the 16 point gain obtained last year.

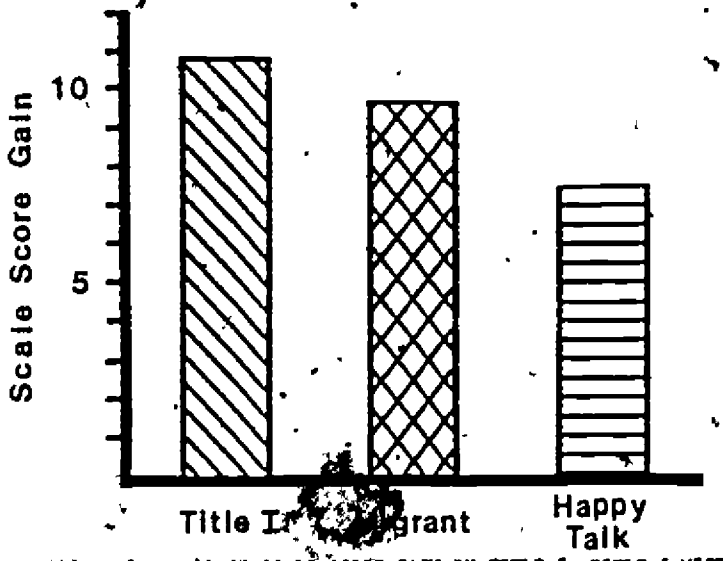


Figure 5. AVERAGE SCALE SCORE GAIN BY TITLE I, TITLE I MIGRANT, AND HAPPY TALK FOUR-YEAR-OLDS.

DID CLASSROOM OBSERVATION SUGGEST ANY REASON WHY THIS YEAR'S GAIN WAS LESS?

The Title I Migrant Evaluation did a few observations in each Title I pre-k class in order to have a comparison group for their observations. The results suggest that a change in the use of instructional time occurred this year. A decrease in formal, adult-led instructional time and an increase in informal instruction may have been related to the drop in achievement gain.

DO FORMER PRE-K STUDENTS CONTINUE TO MAKE GOOD GAINS IN KINDERGARTEN?

Both last year's and this year's evaluations have shown that the former pre-k students entered kindergarten scoring above their classmates. They did not lose their prekindergarten gains during the summer. However, by the time they entered first grade, the students are no longer outscoring their kindergarten classmates.

It seems likely that kindergarten teachers do not respond to the initial advantage of the former pre-k students in ways that maintain their relatively high achievement level throughout the year

THE HAPPY TALK PROGRAM

HOW DID THE HAPPY TALK PROGRAM DO THIS YEAR?

The Happy Talk Program is a home-based instructional program for mothers and children. Each week a community representative visits the participating home with a lesson to demonstrate for the mother. The mother is to watch the lesson and repeat it with the child during the week.

The 1979-80 Happy Talk participants made a significantly greater gain in achievement than a control group of nonparticipants. This year's students did not. Evaluation results suggested that the Happy Talk Program may have been more successful with the high-achieving children in the program than with the lower-scoring ones. As in last year's evaluation, the Happy Talk participants did not make gains as large as those of the Title I pre-k students.

THE SUMMER AT-HOME READING PROGRAM

WHAT WERE THE RESULTS OF THE EVALUATION OF THE 1980 SUMMER AT-HOME PROGRAM?

Title I offered a home-based summer instructional program to about 300 Title I students during the summer of 1980. The results of the evaluation of that program which can be found in Interim Evaluation Report, 1980 Summer At-Home Reading Program, publication number 80.61, were consistent with those of other evaluations of summer programs both in and out of the District.

The summer students did not make larger achievement gains than their matched controls

The program was like the Rainbow Kits in that it was very popular with the parents and children, but it did not have any measurable impact on achievement. There was some evidence to suggest that the match between student achievement level and kit difficulty level needed improvement.

PARENTAL INVOLVEMENT

Apart from evaluation, the only other activities funded by Title I were those of the Parental Involvement Component, which had two main thrusts.

a. to see that campus and districtwide parent advisory councils (PAC's) were established and meeting regularly, and

b. to provide training to the parents of Title I students about topics of interest to them.

Each Title I school had a community representative or a campus contact person to arrange PAC activities at the school. The principal also designated either the Title I/Migrant Parental Involvement Specialist, a campus staff member, or the school's Title I Reading Coordinator as the person responsible for seeing that PAC activities were scheduled and carried out at the campus in accordance with the law. The Parental Involvement Specialist was responsible for PAC activities at the districtwide level.

Altogether nine Districtwide PAC meetings and two Districtwide PAC Workshops were held. Public schools held 71 local campus PAC meetings, and nonpublic Title I schools held four. The total attendance at districtwide and local meetings was 1158 and 347 respectively.

Figure 6 shows that two objectives were met and three were not

Other findings showed:

a. that those schools for which the Title I Parental Involvement Specialist was responsible had slightly more frequent meetings than the others,

b. that when a local campus person was responsible for PAC activities, attendance was highest, and

c. that elected PAC members attended about 50% of the meetings on their campus.

80.32

Met	Not Met	Objectives
[X]	[ ]	At least two parent training sessions for Districtwide PAC members will be held during the 1980-81 school year.
[ ]	[X]	At least one parent from each Title I school will be trained.
[X]	[ ]	A minimum of three staff development sessions or meetings will be held by the Title I/Title I Migrant Parental Involvement Specialist for community representatives and/or campus parental involvement contact persons.
[ ]	[X]	At least two parent training sessions will be held on Title I campuses during the 1980-81 school year.
[ ]	[X]	At least 10 parents will be trained on each campus.

Figure 6. PARENTAL INVOLVEMENT COMPONENT OBJECTIVES.

WHAT CAN WE LEARN FROM THIS YEAR'S EVALUATION?

The major conclusions from the 1980-81 Title I Evaluation which have importance for planning have been highlighted in the foregoing summary. They are listed below.

- Using Title I and local funds to lower the pupil:teacher ratio to approximately 15:1 apparently produced an effective compensatory education program. Low-achieving students in the program made a full year's growth, two grade equivalent months more than similar students in other schools.
- Across grades low-achieving students benefited more from the lower pupil:teacher ratio than higher achieving students.
- Observations suggest that the lowering of the pupil:teacher ratio had a greater effect on the quality of instructional time than on the quantity of instructional time.
- The schoolwide project teachers believe that the project's effectiveness would cease if the pupil:teacher ratio exceeded 18:1.
- There is no evidence of a consistent, positive impact of the regular Title I Program on student achievement. In fact, at some grades former Title I students currently attending schools without a Title I Program outscored similar Title I students.
- By the beginning of the first grade, former Title I prekindergarten students are no longer scoring higher than their classmates.
- Large numbers of parents greatly appreciated having specific, planned instructional activities that they can do with their children at home.
- Summer At-Home Program participants did not make larger achievement gains than their matched controls.

TITLE I MIGRANT

APPENDIX A

PEABODY PICTURE VOCABULARY TEST (PPVT)

Instrument Description: Peabody Picture Vocabulary Test (PPVT)

Brief description of the instrument:

The Peabody Picture Vocabulary Test (PPVT) is a standardized vocabulary test which provides an estimate of the subject's verbal ability. It is individually administered, untimed, and the items the subjects take depend on their age and their responses.

To whom was the instrument administered?

The Migrant and Title I pre-kindergarten students, and Title I Happy Talk Program participants.

How many times was the instrument administered?

Twice to each student. Students were randomly assigned Form A or Form B for the pretest, and then the alternate form was given to them for the posttest.

When was the instrument administered?

The pretests were administered between October 15, 1980 and November 4, 1980 and the posttests were administered between April 21, 1981 and May 7, 1981.

Where was the instrument administered?

Each child was tested individually by a tester in the hall, empty room, empty office, or whatever place the school had made available for the testing.

Who administered the instrument?

The Title I Migrant Evaluator, a Title I evaluation assistant, or one of five ex-teachers hired specifically for PPVT testing.

What training did the administrators have?

Each tester was provided instruction in giving the PPVT and practice in its administration with several non-AISD children.

Was the instrument administered under standardized conditions?

Yes.

Were there problems with the instrument or the administration that might affect the validity of the data?

None were identified.

Who developed the instrument?

Lloyd M. Dunn, Ph.D.

What reliability and validity data are available on the instrument?

The PPVT test manual provided extensive information on test development, norms, reliability, validity, etc.

Are there norm data available for interpreting the results?

Yes.

TABLE OF CONTENTS

Volume I

Volume II

ESEA Title I

Appendix F

PUPIL ACTIVITIES RECORD-REVISED

Instrument Description - Pupil Activities Record--Revised (PAR-R)

Brief description of the instrument.

The Pupil Activities Record--Revised (PAR-R) is a systematic observation instrument designed to answer--"What is the amount and kind of instruction provided to students during an instructional day?" One student is observed for an entire school day to provide an inferential measure of the instruction delivered to all students. The PAR-R was designed originally to observe the activities in Title I, Title I Migrant, Title VII, and Local/State Bilingual classrooms. The variables observed include place of instruction, area of instruction, adult contact, group size, on-task/off-task, language of instruction, mode of instruction, content of instruction, competitiveness, ethnicity, and whether a substitute teacher was present in the classroom.

To whom was the instrument administered?

A total of 352 2nd and 5th grade students in Title I and selected non-Title I elementary schools were observed for an entire school day.

How many times was the instrument administered?

One observation day per student, except at Allison and Becker, where some students were observed more than once.

When was the instrument administered?

October 1980 through May 1981

Where was the instrument administered?

In classrooms, resource rooms, libraries, and any other area in the school where students receive instruction.

Who administered the instrument?

Title I, District Priorities, and Systemwide Desegregation evaluation assistants

What training did the administrators have?

General training in observation processes and a practicum in observing with the PAR-R.

Was the instrument administered under standardized conditions?

Classroom situations varied.

Were there problems with the instrument or the administration that might affect the validity of the data?

The advance notification of scheduled observations may have caused teacher preparation for the observation. Also, some teachers identified the students under observation and may have altered their behavior toward the students.

Who developed the instrument?

Office of Research and Evaluation, Austin Independent School District

What reliability and validity data are available on the instrument?

Inter-rater reliability was assessed using intraclass correlation coefficients for each of the coded categories. The majority of coefficients range between approximately 0.85 and 0.99. Content validation is implied through justification of using single subject, day-long technique rather than total classroom limited-duration observation.

Are there norm data available for interpreting the results?

PEABODY PICTURE VOCABULARY TEST

Purpose

The Peabody Picture Vocabulary Test (PPVT) was administered to migrant and Title I pre-K students and Happy Talk Participants in order to gather information relevant to the following decision and evaluation questions.

Migrant

Decision Question D1: Should the pre-K Instructional Component be continued as it is, modified, or deleted?

Evaluation Question D1-1: Were the achievement objectives met?

Evaluation Question D1-2: How do the pre/posttest gains made by the migrant pre-K students on the PPVT compare with the pre/posttest gains made by the Title I pre-K students?

Information Need I17. How many migrant students were pre- and posttested by grade level?

Title I

Decision Question D4: Should the Title I Early Childhood Education Program be continued as it is, discontinued, or modified? If so how?

Evaluation Question D4-1: Was the objective of the Early Childhood Education Program met?

Happy Talk

Decision Question D5: Should the Happy Talk Program be continued as it is, discontinued, or modified? If so how?

Evaluation Question D5-1: Were the objectives of the Happy Talk Program met?

Evaluation Question D5-2: How did the achievement gains made by the Happy Talk participants compare with those made by Early Childhood Education Program participants?

Procedure

The Peabody Picture Vocabulary Test (PPVT) was administered as a pretest (October 15, 1980-November 7, 1980) and a posttest (April 21, 1981-May 7, 1981)

for all Title I and migrant pre-kindergarten students and all Happy Talk participants. All tests were administered in English.

Since the PPVT is an individually-administered test, several ex-teachers were hired to assist with the pre- and posttesting. They were given training in both administration (and scoring) of the PPVT. Practice training sessions were conducted before both the pre- and posttesting. With the cooperation of both the University Day Care Center and Brentwood Day Care Center, the testers got actual practice giving the PPVT to young children. The testing was conducted by the Migrant Evaluator, the Title I Evaluation Assistant, and one of five ex-teachers hired and trained to administer the Peabody.

The PPVT has two forms - A and B. Both forms were used in the testing. Half the children in each class (and in the Happy Talk program) were randomly assigned Form A and half were randomly assigned Form B for the pretesting. The opposite form was given to the child for the posttest. Therefore each child with both a pre- and posttest, has a Form A score and Form B score.

A memo (Attachment A-1) was sent in September to the Title I and Migrant pre-K teachers to advise them of the PPVT pretesting. Early in October the Migrant Evaluator and the Title I Evaluation Assistant scheduled the pre-K teachers for testing (see Attachment A-2). The Title I Evaluator contacted the Happy Talk Coordinator who scheduled the testing of the Happy Talk students. The pre-K students were tested in their schools and the Happy Talk participants were tested in their homes. Although all testing was conducted in English, a Spanish-speaking tester tested the Happy Talk participants to facilitate communication with their parents. Make-up testing was conducted the week after the regular testing with the teachers' and the Happy Coordinator's cooperation.

In mid December the pre-K teachers were sent their students' pretest results (see Attachment A-3) in the form of percentile bands. These bands were calculated based on the pretest scores of the migrant, Title I, and Happy Talk participants combined. Attachment A-4 is a sample of a class report sent. The Happy Talk Coordinator also received this information for Happy Talk participants.

On April 1 Title I and Migrant pre-kindergarten teachers were sent a memo (see Attachment A-5 for the memo sent to Migrant teachers) to advise them of the posttesting dates. The teachers called and arranged posttesting times. The Happy Talk Coordinator scheduled the Happy Talk testing. As with the pretesting makeup testing was conducted the week after the regular testing with the teachers' and the Happy Talk Coordinator's cooperation.

The pre-kindergarten teachers received their classes' scores and class gains the last day of school. A memo (Attachment A-6) explained the results. Each teacher was given comparison data for their program. Attachment A-7 is a sample class printout.

The PPVTs were all handscored by ORE staff or the testers. All test scoring was double or triple checked to assure accuracy of the results.

The administration procedures for the PPVT were followed very strictly. Any student for whom a basal was not obtained was considered to have a possibly invalid score and was excluded from the gain analyses. Also any other score that was considered suspect was marked possibly invalid and not used in the analyses. Teachers and the Happy Talk Coordinator were asked to indicate which students were Spanish dominant (or other-than-English dominant) before the children were tested. None of the procedures were changed, but a separate analyses was done on gains to see how the Spanish-dominant children did in comparison to the English-dominant children. See Attachment A-8. Since the Spanish-dominant students did as well (and in some cases better) on the Peabody given in English, their test results were included in the analyses. The gains analyses and the other analyses reported on in this appendix include only those children for whom there are valid pre- and posttest scores. The PPVT scale score was the score used in the analyses.

The PPVT data were keypunched and verified at Southwest Educational Development Lab (SEDL) as per the card file layout in Attachment A-9. The data are stored at AISD on files: EVØPEA81 0101 = pretest data, EVØPEA81 0102 = posttest data, EVØPEA81 0103 = pre/posttest data merged, and EVØPEA81 0104 = pretest and posttest only data (the data file used for the analyses). Control file EVØPBSRT sorts the data by school, teacher, form, and name. EVØPBSRT 0102 sorts by teacher name and scale scores. Control file EVØDISTP was used to run the frequencies of the various PPVT scores. EVØPBCNT was used to count the pre- and posttest scores and averages of students with Spanish-dominant and English-dominant language codes. EVØREGRN0101 was the control file used to run all the linear model analyses. The control data for the Happy Talk analysis are on EVØCON0101.

Results

Except for the achievement of the Title I and migrant objectives, the analyses used to answer the evaluation questions were linear models (these models were analyses of covariance using the slopes and intercepts tests). A prototypic model for comparing gains and controlling for pretest scores is in Attachment A-10. Only students in all three programs that had valid pre- and posttest scores are included in the analyses. Attachment A-11 shows the frequency distribution of PPVT scale scores-pretest, posttest, and gains for migrant students. Attachment A-12 presents the frequency distribution (pre, post, and gains) of PPVT scale scores for Title I students. The frequency distribution of the PPVT scale scores (pre, post, and gains) are listed in Attachment A-13.

Migrant

Evaluation Question DI-1: Were the achievement objectives met?

The migrant objectives set three performance levels (A, B, and C) for gains on the PPVT. Students at the A level made a standard score of 100 or more on the pretest and were expected to make 0-5 points gain on the posttest. Students at the B level (pretest score of 99-86) needed 6-19 standard score

points to reach the A level or National median. The C level (85 or lower) on the pretest needed 20 or more points to reach the A level. In Figure A-1 are presented the percent of migrant students scoring at each level on the pre- and posttest and the percents of students who made each level gain. As can be noted from the figure, the students did improve from pre- to post, in that the majority of students were at the C level on the pretest and the majority were at the A and B levels on the post. It is difficult to assess the achievement of these stratified objectives, but it appears that not a high enough percentage of students gained to reach the A level as was expected in the objectives.

Performance Level	Percent of Students Scoring at Each Level-Pretest	Percent of Students Scoring at Each Level-Posttest	Gains Pre- to Posttest	Percent of Students Making Gains at Each Level
Standard score of 100 or more (A)	21%	40%	0-5 standard scores points	37%
Standard score of 99-86 (B)	27%	32%	6-19 standard scores points	33%
Standard score of 85 or less (C)	52%	28%	20 or more standard score points	30%

Figure A-1. MIGRANT STUDENT PRETEST, POSTTEST, AND GAINS MADE ON THE PPVT IN TERMS OF THE MIGRANT APPLICATION OBJECTIVES.

The average gain for the migrant students was 9.63 scale score points.

Evaluation Question D1-2. How do the pre/posttest gains made by the migrant students on the PPVT compare with the pre/posttest gains made by the Title I pre-K students?

In Attachment A-14 are documented the analyses conducted to compare Title I and migrant gains on the PPVT. The two programs did show gains that were significantly different. In Figure A-2 are charted some predicted posttest scores for Title I and migrant students. Generally the differences were greatest when the pretest score was lower, with Title I students scoring considerably higher. The gap between the two groups narrows as the pretest scores increase. This is illustrated in the graph in Figure A-3.

		PRETEST SCORE				
Group	N	60	70	80	90	100
Title I	122	83.9	89.1	94.1	99.0	104.9
Migrant	94	74.5	81.6	88.7	96.2	104.4
Difference		9.4	7.5	5.4	2.8	.5

Figure A-2. PREDICTED POSTTEST SCORES AT SELECTED PRETEST VALUES FOR TITLE I AND MIGRANT PRE-K STUDENTS.

In Attachment A-15 are the analyses conducted to compare Title I, migrant, and Happy Talk gains. These analyses found the three groups to be significantly different from each other. These differences can be noted in Figure A-3. The Happy Talk and migrant lines have quite different slopes.

Miscellaneous

Analyses of covariance were also performed to compare the gains made by the 9 pre-K classes (7 Migrant and the two split-funded Title I/Migrant classes). These are documented in Attachment A-16. No significant differences were noted among the classes, indicating overall gains were generally the same over the program regardless of which class students were in.

Title I

Evaluation Question D5-1. Was the objective of the Early Childhood Education Program met?

In Figure A-4 are the stratified expected gains for the Title I pre-K students on the PPVT. The percent of students making each gain are also listed. The assessment of these stratified objectives is very difficult; however, it appears that fewer students made as high gains as were expected and more made lower gains than were expected.

Standard Score Gain	Expected Gains	Actual Gains
21 or more points	42%	25%
11-20 points	20%	22%
6-10 points	14%	14%
1-5 points	16%	7%
0 points or less	8%	32%

Figure A-4. EXPECTED AND ACTUAL GAINS ON THE PPVT FOR MEASUREMENT OF THE TITLE I OBJECTIVES.

The average gain made by the 122 Title I students pre- and posttested was 10.84 scale score points.

Miscellaneous

As was done with Migrant classes, analyses were conducted to compare gains made by the 9 pre-K classes (7 Title I and the two split-funded Title I/ Migrant classes). These analyses are documented in Attachment A-17. Unlike the Migrant classes, significant differences in gains were found among the Title I classes indicating the class did have an impact on the student gains made.

Happy Talk

Evaluation Question D5-1. Were the objectives of the Happy Talk Program met?

1. Happy Talk participants will demonstrate a significantly higher vocabulary achievement level than a control group of nonparticipants, as measured by pre- and post administrations of the PPVT ($p \leq .05$ level of significance).

2. A majority of Happy Talk participants will gain 10 standard score points from pre- to posttesting with the PPVT.

The Happy Talk Program is a home-based instructional program for mothers and children. Each week a community representative visits the participating home with a lesson to demonstrate for the mother. The community representative usually takes a toy or a book to use in doing the lesson. The mother is to watch the lesson and repeat it with the child during the week. The next week the community representative brings another toy or book and another lesson to demonstrate for the mother.

Objective 1. To save time and cost of recruiting a comparison group of nonparticipants, the decision was made to use the previous year's control group for comparison. The traditional slopes and intercepts tests of analysis of covariance (documented in Attachment A-18) revealed no differences between the two groups, i.e., on the average the Happy Talk participants did not show a larger gain than the control group. However the analyses did reveal that the regression slopes for the two groups were curvilinear and unequal. Therefore, while on the average, the groups may not have differed significantly, the predicted posttest score for one group might have been significantly higher than the predicted value of the other group at certain ranges of the pretest. Figure A-4 illustrates that the differences between the groups were greatest at higher pretest scores. It appears that the program was more successful with higher achieving rather than lower achieving students.

		PRETEST SCORE						
Group	N	65	70	75	80	85	90	95
Happy Talk	45	78.4	79.5	81.2	83.3	85.9	89.0	92.6
Control	26	77.9	79.7	81.0	81.9	82.2	82.2	81.7
Difference		.5	-.2	.2	1.4	3.7	6.8	10.9

Figure A-5. PREDICTED POSTTEST SCORES AT SELECTED PRETEST VALUES FOR HAPPY TALK PARTICIPANTS AND CONTROLS.

Objective 2. This objective was not met. On the average, participants gained only about 6.7 scale score points. Forty-two percent made gains of 10 points or higher.

Evaluation Question D5-2. How did the achievement gains made by Happy Talk participants compare with those made by Early Childhood Education Program participants?

The analyses reported in Attachment A-19 revealed that, as a group, Title I pre-K students had higher posttest scores than did Happy Talk children with the same pretest scores. The analyses also indicated that the differences between groups were not the same across all levels of the pretest. In Figure A-6, it can be noted that the difference between the groups is greater at low pretest scores than at higher pretest scores. These differences are also illustrated in Figure A-3. That is, Happy Talk students were closer to the Title I students on the posttest when they had a high pretest score. This finding provides further evidence that the Happy Talk Program was more effective with higher achieving children than with lower achieving ones.

		PRETEST SCORE						
Group	N	65	70	75	80	85	90	95
Title I Pre-K	122	89.2	90.7	92.4	94.2	96.2	98.3	100.6
Happy Talk	45	78.9	81.0	83.3	85.7	88.3	91.0	93.9
Difference		10.3	9.7	9.1	8.5	7.9	7.3	6.7

Figure A-6. PREDICTED POSTTEST SCORES AT SELECTED PRETEST VALUES FOR TITLE I PRE-K AND HAPPY TALK PARTICIPANTS.

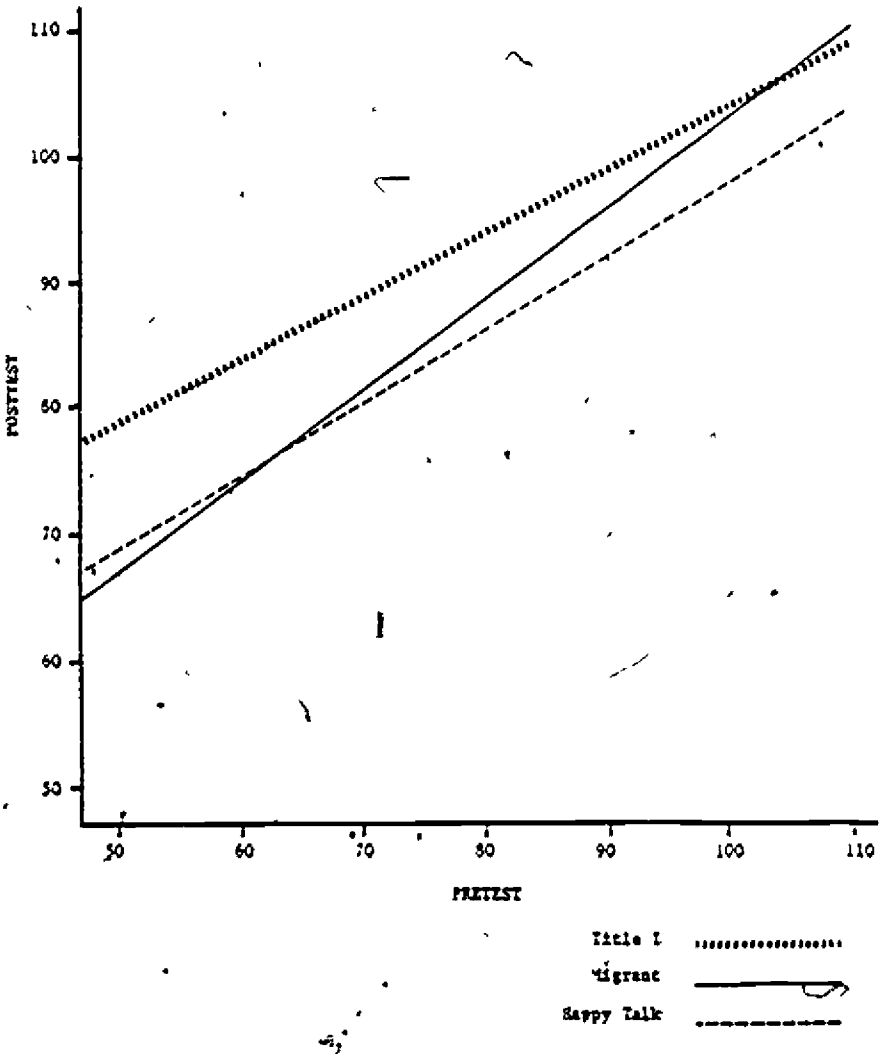


Figure A-3. DIFFERENCES AMONG THE SCALE SCORES FROM PRE- TO POSTTEST ON THE PPVT BY MIGRANT AND TITLE I PRE-KINDERGARTEN STUDENTS AND HAPPY TALK PARTICIPANTS.

80.71

Attachment A-1

AUSTIN INDEPENDENT SCHOOL DISTRICT
Office of Research and Evaluation

September 30, 1980

TO: Title I and Title I Migrant Pre-K Teachers

FROM: David Doss, Title I Evaluator
Catherine Christner, Title I Migrant Evaluator

SUBJECT: Pre-K Achievement Pretest

We will be contacting each of you in the near future to set up a specific date and time between October 15 and October 31 to administer the Peabody Picture Vocabulary Test (PPVT). The PPVT is being used this year as the achievement test to measure pre-K achievement gains.

The PPVT is an individually administered test. You will not be required to administer this test as we will have trained testers to do this. There will be no practice test needed. We plan to try to test all the students in one class during a morning period. The actual administration time for each child should be only 15 to 20 minutes.

Thank you for your cooperation.

Approved: _____
Director, Office of Research and Evaluation

Approved: _____
Acting Director, Elementary Education

CC:rrf

cc: Lee Laws
Oscar Cantú
José Mata
Timy Baranoff
Principals with Pre-K Teachers

32

80.71

Attachment A-2

AUSTIN INDEPENDENT SCHOOL DISTRICT
Office of Research and Evaluation

October 14, 1980

TO: Migrant Pre-K Teachers

FROM: Catherine Christner, Migrant Evaluator

SUBJECT: Confirmation of Peabody Picture Vocabulary Test

This is to remind you that your class is scheduled to take the Peabody Picture Vocabulary Test on _____.

The testers will be two of the following: Nancy Manning, Eva Costilla, or Catherine Christner. The testers will arrive during the breakfast period to set up and begin testing whenever breakfast is finished. Each child will be tested individually and should be out of class for only 15 to 20 minutes. The testing should be completed before the lunch period begins.

We really appreciate your cooperation.

CC:rrf

Approved: _____
Director, Office of Research and Evaluation

Approved: _____
Acting Director, Elementary Education

cc: Lee Laws - Oscar Cantú - José Mata
Principals of Schools with Migrant Pre-K Teachers

Allison - October 30, 1980	Ortega - October 21, 1980
Brooke - October 29, 1980	Ridgetop - October 28, 1980
Dawson - October 22, 1980	Sanchez - October 15, 1980
Metz - October 23, 1980	St. Elmo - October 16, 1980

80.71

Attachment A-3

AUSTIN INDEPENDENT SCHOOL DISTRICT
Office of Research and Evaluation

December 17, 1980

TO: Title I and Title I Migrant Pre-K Teachers

FROM: David Doss and Catherine Christner

SUBJECT: Peabody Pretest Score Results

Enclosed are the results for your class from the Peabody Picture Vocabulary Testing done earlier this fall. In order to make these scores more meaningful to you, we have translated the results into percentile bands. Any test score is only an estimate of a student's achievement level. The pertentile bands describe a range of scores within which the student's "true" score is likely to fall. These percentile bands are provided for your information, and not suggested for use in instructional placement.

Please feel free to call us if you have any questions. The posttesting will be in April. You will be sent more information about this at a later date.

Approved: _____
Director, Office of Research and Evaluation

Approved: Roberta Hartung
Acting Director, Elementary Education

CC:rrf
Enclosures

cc: Lee Laws
Oscar Cantú
José Mata
Principals of Schools with Pre-K Teachers

34

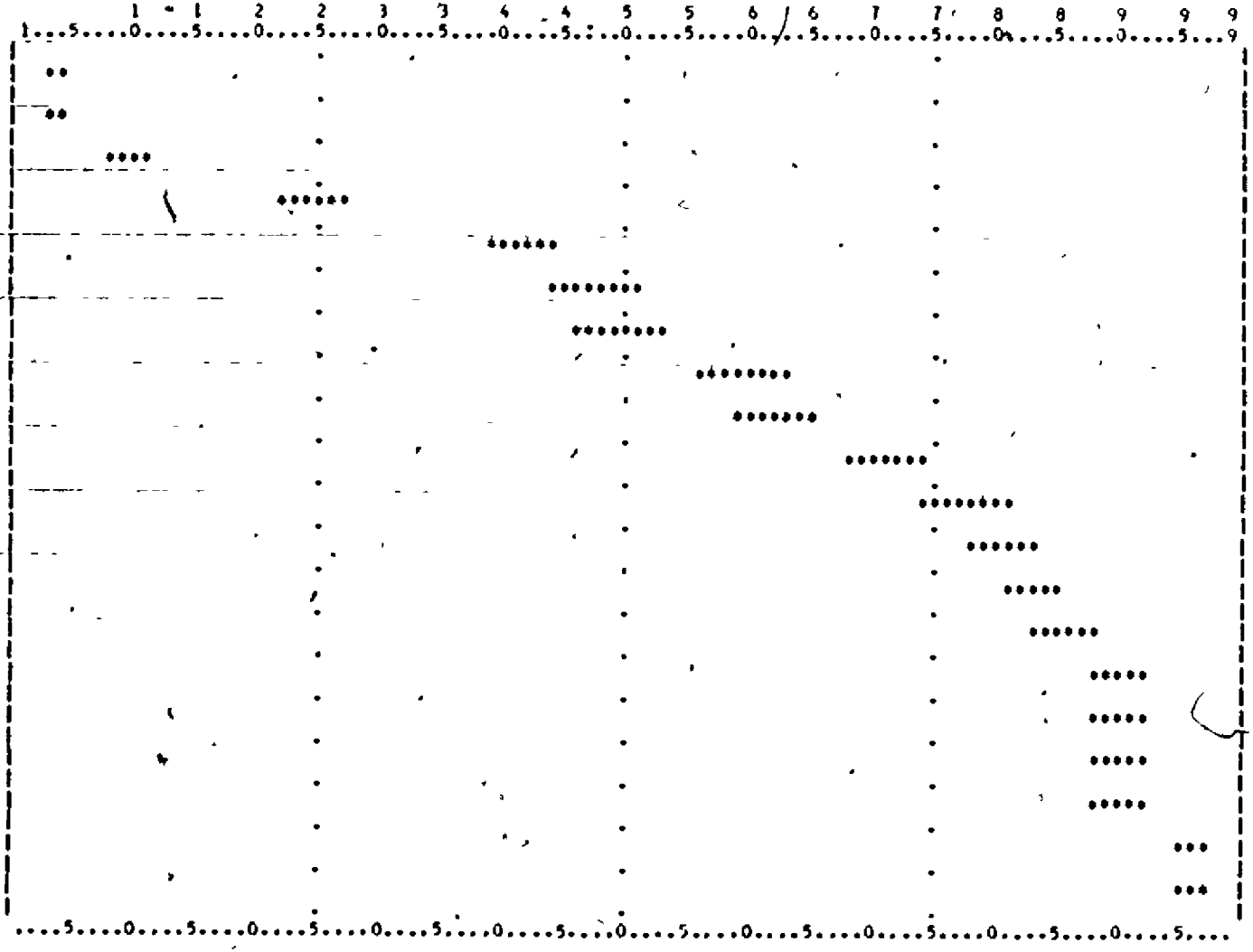
AUSTIN INDEPENDENT SCHOOL DISTRICT
OFFICE OF RESEARCH AND EVALUATION

PERCENTILE BANDS OF PEABODY RAW SCORES MIGRANT 12/19/80

80.71

TEACHER

Student Names



Attachment A-4

89.71

Attachment A-5

AUSTIN INDEPENDENT SCHOOL DISTRICT
Office of Research and Evaluation

April 1, 1981

TO: Title I Migrant Pre-K Teachers

FROM: Catherine Christner

SUBJECT: Peabody Picture Vocabulary Test Posttest

The posttesting of the prekindergarten students with the Peabody will be April 21 through April 24 and April 28 through May 1. As in the fall, trained testers will administer the test to each student individually. We will try to test all the students in one class during a morning period. The actual time per child will be only 15 to 20 minutes.

Please call me to arrange a convenient time for us to come out and conduct the testing. We can schedule only one school per morning.

Thank you for your cooperation.

Approved: _____
Director, Office of Research and Evaluation

Approved: Roberta Hartunga
Acting Director, Elementary Education

CC:rrf

cc: Lee Laws
Oscar Cantú
José Mata
Timy Baranoff
Principals with Migrant Pre-K Teachers

80.71 Attachment A-6

AUSTIN INDEPENDENT SCHOOL DISTRICT
Office of Research and Evaluation

May 27, 1981

TO: Title I and Migrant Pre-K Teachers

FROM: Catherine Christner and David Doss

SUBJECT: Peabody Posttest Scores

Enclosed are the results from the posttesting of your students. For each student posttested, you will find a posttest scale score. If the student was also pretested, he/she will have a pretest score listed and the gain made from pre- to posttest. Students for whom you had indicated a dominant language other than English, will have an asterisk by their name. If we felt a student's score might not be valid, "possibly invalid" is listed for that child.

For each class and each program we have computed an average pretest score, an average posttest score, and an average gain. These data for your class and your program are included for your information.

CC:lg
Enclosures

APPROVED: _____
Director, Office of Research and Evaluation

APPROVED: _____
Director, Elementary Education

cc: Tiny Baranoff
Lee Laws
Oscar Cantú
José Mata

PEABODY SCALE SCORE RESULTS - TITLE I AND MIGRANT - Teacher Name 06/04/81

Student NAME	SCALE SCORES PRE	POST	GAIN	LANG	POSSIBLY INVALID
		99			
	78	110	32		
	79	92	13		
	96	91	5		
	80	77	3		
	91	114	23		
	82	100	18		
	36	93	57		
		67			
	98	116	18		
	86	94	8		
	116	112	4		
	75	85	10		
	84	111	27		
	83	112	29		
	101	114	13		
	94	104	10		
	75	100	25		
	90	117	27		

CLASS TOTALS		1444	1508	322	
STUDENTS PRETESTED	17	STUDENTS POSTTESTED		19	STUDENTS WITH VALID GAIN 17
CLASS AVERAGES		84.94	100.42	18.94	
TITLE I PROGRAM TOTALS		10856	13379	1348	
STUDENTS PRETESTED	126	STUDENTS POSTTESTED		138	STUDENTS WITH VALID GAIN 122
TITLE I PROGRAM AVERAGES		86.16	96.95	11.05	
MIGRANT PROGRAM TOTALS		8628	10691	914	
STUDENTS PRETESTED	110	STUDENTS POSTTESTED		125	STUDENTS WITH VALID GAIN 94
MIGRANT PROGRAM AVERAGES		78.44	85.53	9.72	

80.71

A-18

Attachment A-7

COMPARISONS OF PEABODY SCALE SCORE GAINS BY SPANISH AND ENGLISH LANGUAGE DOMINANCE OF PRE-K STUDENTS

	Title I	Mean	N
Gain	Spanish Dominant	11.33	3
	English Dominant	10.77	123
Gain	Spanish Dominant	10.50	18
	English Dominant	9.27	91

FILE ID A /P / N

CARD FILE LAYOUT

LOCATION:

PROGRAM: Title I Migrant

AISD

YEAR: 1980-81

UT PF ____, ____, ____
acct. pass. file name

80.71

CONTENTS: Title I Pre-K, Migrant Pre-K,, and Happy Talk Peabody Testing Program

Field	Columns	Description
A	1-3	File ID-APN
	5-25	Name (last name first)
	26-26	Sex (1=female; 2=male)
	27-29	School
	30-31	Teacher (see attached list)
	32-32	Tester (1=BB; 2=MM; 3=CC; 4=NL; 5=EC; 6=NM, 7=FO; 8=CB)
	33-34	Age (in months)
	35-35	Form (1=A; 2=B)
	36-36	Program (1=Title I Pre-K; 2=Migrant Pre-K; 3=Happy Talk)
	37-37	Language dominant (1=English; 2=Spanish; 3 = Other)
	38-38	Basal (1=yes; 2=no)
	39-39	Time of year (1=pretest; 2=posttest)
	40-41	Raw score
	42-44	Scale score

A-26

Attachment A-9
(Page 1 of 3)

FILE ID A / P / N

CARD FILE LAYOUT

LOCATION:

PROGRAM: Title I Migrant

AISD ____ / ____ /

YEAR: 1980-81

UT PF ____ ; ____ , ____
acct. pass. file name

80.71

CONTENTS: Title I Pre-K, Migrant Pre-K, and Happy Talk Peabody Testing Program

Field	Columns	Description
	45-46	Percentile score
	47-47	Possibly invalid (1=yes)
	48-48	Race/ethnicity (1 = American Indian, 2 = Black, 3 = Asian, 4 = Hispanic,
		5 = Anglo)

A-21

Attachment A-9
(continued, page 2 of 3)

PRE-K SCHOOL LIST

01 = Brown 1 (Ferguson)

02 = Brown 2 (Martin)

03 = Maplewood

04 = Norman TITLE I

05 = Ortega

06 = Rosewood

07 = Sims

---

08 = Ridgetop

09 = Rosewood 50% TITLE I/50% MIGRANT

---

10 = Allison

11 = Brooke

12 = Dawson

13 = Metz MIGRANT

14 = Ortega

15 = St. Elmo

16 = Sanchez

17 = Happy Talk

PROTOTYPIC MODELS FOR COMPARING GROUP GAINS

Model 1: $Y = a_0U + a_1X^{(3)} + a_3X^{(4)} + a_4X^{(6)} + a_5X^{(7)} + a_6X^{(8)} + E$

Model 2: $Y = a_7U + a_8X^{(3)} + a_9X^{(4)} + a_{10}X^{(5)} + a_{11}X^{(8)} + E$

Model 3: $Y = a_{12}U + a_{13}X^{(3)} + a_{14}X^{(4)} + a_{15}X^{(8)} + E$

Model 4: $Y = a_{16}U + a_{17}X^{(2)} + a_{18}X^{(8)} + E$

Model 5: $Y = a_{19}U + a_{20}X^{(2)} + E$

Where,

- Y = posttest
- U = unit vector
- $X^{(2)}$ = pretest
- $X^{(3)}$ = pretest if a member of Group 1; 0, otherwise
- $X^{(4)}$ = pretest if a member of Group 2; 0 otherwise
- $X^{(5)}$ = $X^{(2)}$ squared
- $X^{(6)}$ = $X^{(3)}$ squared
- $X^{(7)}$ = $X^{(4)}$ squared
- $X^{(8)}$ = 1 if a member of Group 1; 0, otherwise
- E = ERROR

DISTAT - ANALYSIS #8 - PEABODY TESTING PROGRAM -- MIGRANT

FREQUENCY DISTRIBUTION FOR VARIABLE # 1 (PRETEST SCALE)

CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT.)	ADJUSTED FREQ (PCT.)	CUMULATIVE FREQ (PCT.)
38.	1.	1.1	1.1	1.1
43.	1.	1.1	1.1	2.1
47.	1.	1.1	1.1	3.2
49.	1.	1.1	1.1	4.3
53.	2.	2.1	2.1	6.4
54.	1.	1.1	1.1	7.4
55.	1.	1.1	1.1	8.5
56.	1.	1.1	1.1	9.6
57.	1.	1.1	1.1	10.6
58.	1.	1.1	1.1	11.7
59.	2.	2.1	2.1	13.8
60.	1.	1.1	1.1	14.9
61.	1.	1.1	1.1	16.0
62.	1.	1.1	1.1	17.0
64.	2.	2.1	2.1	19.1
65.	2.	2.1	2.1	21.3
66.	2.	2.1	2.1	23.4
68.	2.	2.1	2.1	25.5
69.	3.	3.2	3.2	28.7
72.	1.	1.1	1.1	29.8
73.	2.	2.1	2.1	31.9
75.	1.	1.1	1.1	33.0
76.	1.	1.1	1.1	34.0
78.	1.	1.1	1.1	35.1
79.	1.	1.1	1.1	36.2
80.	2.	2.1	2.1	38.3
81.	1.	1.1	1.1	39.4
82.	3.	3.2	3.2	42.6
84.	3.	3.2	3.2	45.7
85.	1.	1.1	1.1	46.8

86.	1.	1.1	1.1	47.8
87.	1.	1.1	1.1	48.9
88.	1.	1.1	1.1	50.0
89.	2.	2.1	2.1	52.1
90.	3.	3.2	3.2	55.3
91.	1.	1.1	1.1	56.4
92.	3.	3.2	3.2	59.6
93.	4.	4.3	4.3	63.8
94.	4.	4.3	4.3	68.1
95.	1.	1.1	1.1	69.1
96.	2.	2.1	2.1	71.3
97.	2.	2.1	2.1	73.4
99.	1.	1.1	1.1	74.5
100.	4.	4.3	4.3	78.7
101.	2.	2.1	2.1	80.9
102.	1.	1.1	1.1	81.9
103.	1.	1.1	1.1	83.0
104.	1.	1.1	1.1	84.0
105.	3.	3.2	3.2	87.2
106.	1.	1.1	1.1	88.3
108.	1.	1.1	1.1	89.4
109.	1.	1.1	1.1	90.4
111.	3.	3.2	3.2	93.6
112.	2.	2.1	2.1	95.7
114.	2.	2.1	2.1	97.9
116.	1.	1.1	1.1	98.9
127.	1.	1.1	1.1	100.0
TOTAL	94.	100.0	100.0	

VALID CASES= 94
MISSING CASES= 0

MEAN= 84.3404 VARIANCE= 379.7968
STD. DEV= 19.4884 STD. ERR= 2.0101
MAXIMUM= 127.0000 MINIMUM= 38.0000
RANGE= 90.0000

DISTAT - ANALYSIS #8 - PEABODY TESTING PROGRAM -- MIGRANT

FREQUENCY DISTRIBUTION FOR VARIABLE # 2 (POSTTEST SCALE)

CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT.)	ADJUSTED FREQ (PCT.)	CUMULATIVE FREQ (PCT.)
22.	1.	1.1	1.1	1.1
40.	1.	1.1	1.1	2.1
47.	1.	1.1	1.1	3.2
56.	1.	1.1	1.1	4.3
57.	2.	2.1	2.1	6.4
65.	1.	1.1	1.1	7.4
68.	1.	1.1	1.1	8.5
69.	2.	2.1	2.1	10.6
70.	1.	1.1	1.1	11.7
72.	1.	1.1	1.1	12.8
75.	1.	1.1	1.1	13.8
76.	1.	1.1	1.1	14.9
78.	3.	3.2	3.2	18.1
79.	1.	1.1	1.1	19.1
81.	1.	1.1	1.1	20.2
82.	2.	2.1	2.1	22.3
83.	2.	2.1	2.1	24.5
85.	1.	1.1	1.1	25.5
86.	1.	1.1	1.1	26.6
87.	2.	2.1	2.1	28.7
89.	4.	4.3	4.3	33.0
90.	6.	6.4	6.4	39.4
91.	4.	4.3	4.3	43.6
93.	4.	4.3	4.3	47.9
95.	2.	2.1	2.1	50.0
96.	2.	2.1	2.1	52.1
97.	1.	1.1	1.1	53.2
98.	4.	4.3	4.3	57.4
99.	1.	1.1	1.1	58.5
100.	1.	1.1	1.1	59.6

101.	1.	1.1	1.1	60.6
102.	1.	1.1	1.1	61.7
104.	2.	2.1	2.1	63.8
105.	2.	2.1	2.1	66.0
106.	3.	3.2	3.2	69.1
107.	1.	1.1	1.1	70.2
108.	3.	3.2	3.2	73.4
109.	2.	2.1	2.1	75.5
110.	5.	5.3	5.3	80.9
111.	2.	2.1	2.1	83.0
112.	4.	4.3	4.3	87.2
114.	3.	3.2	3.2	90.4
115.	1.	1.1	1.1	91.5
116.	2.	2.1	2.1	93.6
117.	2.	2.1	2.1	95.7
118.	1.	1.1	1.1	96.8
119.	1.	1.1	1.1	97.9
120.	1.	1.1	1.1	98.9
132.	1.	1.1	1.1	100.0
TOTAL	94.	100.0	100.0	

VALID CASES= 94
MISSING CASES= 0

MEAN= 93.9787 VARIANCE= 361.8705
STD. DEV= 19.0229 STD. ERR= 1.9621
MAXIMUM= 132.0000 MINIMUM= 22.0000
RANGE= 111.0000

DISTAT - ANALYSIS #8 - PEABODY TESTING PROGRAM -- MIGRANT

FREQUENCY DISTRIBUTION FOR VARIABLE # 3 (SCALE GAIN

CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT.)	ADJUSTED FREQ (PCT.)	CUMULATIVE FREQ (PCT.)
-44.	1.	1.1	1.1	1.1
-40.	1.	1.1	1.1	2.1
-26.	1.	1.1	1.1	3.2
-23.	1.	1.1	1.1	4.3
-20.	1.	1.1	1.1	5.3
-12.	1.	1.1	1.1	6.4
-11.	3.	3.2	3.2	9.6
-7.	2.	2.1	2.1	11.7
-6.	1.	1.1	1.1	12.8
-5.	1.	1.1	1.1	13.8
-4.	1.	1.1	1.1	14.9
-3.	1.	1.1	1.1	16.0
-2.	1.	1.1	1.1	17.0
-1.	2.	2.1	2.1	19.1
0.	2.	2.1	2.1	21.3
1.	2.	2.1	2.1	23.4
2.	5.	5.3	5.3	28.7
3.	3.	3.2	3.2	31.9
4.	2.	2.1	2.1	34.0
5.	3.	3.2	3.2	37.2
6.	5.	5.3	5.3	42.6
8.	3.	3.2	3.2	45.7
9.	3.	3.2	3.2	48.9
10.	3.	3.2	3.2	52.1
12.	7.	7.4	7.4	59.6
13.	3.	3.2	3.2	62.8
14.	3.	3.2	3.2	66.0
15.	2.	2.1	2.1	68.1
16.	3.	3.2	3.2	71.3

17.	1.	1.1	1.1	72.3
18.	1.	1.1	1.1	73.4
19.	2.	2.1	2.1	75.5
20.	1.	1.1	1.1	76.6
21.	2.	2.1	2.1	78.7
22.	2.	2.1	2.1	80.9
23.	2.	2.1	2.1	83.0
26.	3.	3.2	3.2	86.2
27.	4.	4.3	4.3	90.4
29.	1.	1.1	1.1	91.5
31.	2.	2.1	2.1	93.6
33.	2.	2.1	2.1	95.7
38.	1.	1.1	1.1	96.8
40.	1.	1.1	1.1	97.9
45.	1.	1.1	1.1	98.9
51.	1.	1.1	1.1	100.0
TOTAL	94.	100.0	100.0	

VALID CASES= 94
MISSING CASES= 0

MEAN= 9.6383 VARIANCE= 254.7925
STD. DEV= 15.9622 STD. ERR= 1.6464
MAXIMUM= 51.0000 MINIMUM= -44.0000
RANGE= 96.0000

DISTAT - ANALYSIS #7 - PEABODY TESTING PROGRAM -- TITLE I

FREQUENCY DISTRIBUTION FOR VARIABLE # 1 (PRETEST SCALE)

CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT.)	ADJUSTED FREQ (PCT.)	CUMULATIVE FREQ (PCT.)
26.	1.	0.8	0.8	0.8
36.	1.	0.8	0.8	1.6
37.	1.	0.8	0.8	2.5
43.	1.	0.8	0.8	3.3
53.	2.	1.6	1.6	4.9
54.	1.	0.8	0.8	5.7
57.	1.	0.8	0.8	6.6
61.	4.	3.3	3.3	9.8
62.	1.	0.8	0.8	10.7
65.	2.	1.6	1.6	12.3
66.	2.	1.6	1.6	13.9
68.	1.	0.8	0.8	14.8
71.	3.	2.5	2.5	17.2
72.	1.	0.8	0.8	18.0
73.	3.	2.5	2.5	20.5
74.	1.	0.8	0.8	21.3
75.	3.	2.5	2.5	23.8
76.	1.	0.8	0.8	24.6
78.	5.	4.1	4.1	28.7
79.	2.	1.6	1.6	30.3
80.	3.	2.5	2.5	32.8
81.	4.	3.3	3.3	36.1
82.	3.	2.5	2.5	38.5

83.	1.	0.8	0.8	39.3
84.	5.	4.1	4.1	43.4
85.	2.	1.6	1.6	45.1
86.	2.	1.6	1.6	46.7
87.	2.	1.6	1.6	48.4
89.	3.	2.5	2.5	50.8
90.	4.	3.3	3.3	54.1
91.	3.	2.5	2.5	56.6
92.	5.	4.1	4.1	60.7
93.	4.	3.3	3.3	63.9
94.	5.	4.1	4.1	68.0
95.	1.	0.8	0.8	68.9
96.	2.	1.6	1.6	70.5
98.	3.	2.5	2.5	73.0
99.	1.	0.8	0.8	73.8
100.	2.	1.6	1.6	75.4
101.	8.	6.6	6.6	82.0
102.	1.	0.8	0.8	82.8
103.	2.	1.6	1.6	84.4
104.	1.	0.8	0.8	85.2
105.	2.	1.6	1.6	86.9
107.	3.	2.5	2.5	89.3
108.	2.	1.6	1.6	91.0
109.	1.	0.8	0.8	91.8
112.	1.	0.8	0.8	92.6
114.	1.	0.8	0.8	93.4
116.	2.	1.6	1.6	95.1
120.	1.	0.8	0.8	95.9
123.	1.	0.8	0.8	96.7

125.	1.	0.8	0.8	97.5
127.	1.	0.8	0.8	98.4
139.	1.	0.8	0.8	99.2
144.	1.	0.8	0.8	100.0
TOTAL	122.	100.0	100.0	

VALID CASES= 122
MISSING CASES= 0

MEAN= 87.2541 VARIANCE= 378.2737
STD. DEV= 19.4493 STD. ERR= 1.7609
MAXIMUM= 144.0000 MINIMUM= 26.0000
RANGE= 119.0000

DISTAT - ANALYSIS #7 - PEABODY TESTING PROGRAM -- TITLE I

FREQUENCY DISTRIBUTION FOR VARIABLE # 2 (POSTTEST SCALE)

CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT.)	ADJUSTED FREQ (PCT.)	CUMULATIVE FREQ (PCT.)
53.	1.	0.8	0.8	0.8
58.	1.	0.8	0.8	1.6
65.	1.	0.8	0.8	2.5
67.	1.	0.8	0.8	3.3
68.	1.	0.8	0.8	4.1
71.	2.	1.6	1.6	5.7
73.	1.	0.8	0.8	6.6
74.	1.	0.8	0.8	7.4
75.	1.	0.8	0.8	8.2
76.	1.	0.8	0.8	9.0
77.	1.	0.8	0.8	9.8
78.	2.	1.6	1.6	11.5
79.	2.	1.6	1.6	13.1
80.	3.	2.5	2.5	15.6
81.	3.	2.5	2.5	18.0
83.	1.	0.8	0.8	18.9
84.	1.	0.8	0.8	19.7
85.	3.	2.5	2.5	22.1
87.	2.	1.6	1.6	23.8
88.	2.	1.6	1.6	25.4
90.	8.	6.6	6.6	32.0
91.	2.	1.6	1.6	33.6

92.	3.	2.5	2.5	36.1
93.	4.	3.3	3.3	39.3
94.	1.	0.8	0.8	40.2
95.	4.	3.3	3.3	43.4
96.	1.	0.8	0.8	44.3
97.	1.	0.8	0.8	45.1
98.	1.	0.8	0.8	45.9
99.	3.	2.5	2.5	48.4
100.	5.	4.1	4.1	52.5
101.	5.	4.1	4.1	56.6
102.	1.	0.8	0.8	57.4
103.	3.	2.5	2.5	59.8
104.	5.	4.1	4.1	63.9
105.	1.	0.8	0.8	64.8
106.	3.	2.5	2.5	67.2
107.	4.	3.3	3.3	70.5
108.	3.	2.5	2.5	73.0
109.	3.	2.5	2.5	75.4
110.	3.	2.5	2.5	77.9
111.	4.	3.3	3.3	81.1
112.	4.	3.3	3.3	84.4
114.	2.	1.6	1.6	86.1
115.	1.	0.8	0.8	86.9
116.	3.	2.5	2.5	89.3

58

117.	2.	1.6	1.6	91.0
118.	1.	0.8	0.8	91.8
120.	2.	1.6	1.6	93.4
121.	1.	0.8	0.8	94.3
123.	1.	0.8	0.8	95.1
125.	4.	3.3	3.3	98.4
127.	1.	0.8	0.8	99.2
144.	1.	0.8	0.8	100.0
TOTAL	122.	100.0	100.0	

VALID CASES= 122
MISSING CASES= 0

MEAN= 98.0902 VARIANCE= 253.2397
STD. DEV= 15.9135 STD. ERR= 1.4407
MAXIMUM= 144.0000 MINIMUM= 53.0000
RANGE= 92.0000

DISTAT - ANALYSIS #7 - PEABODY TESTING PROGRAM -- TITLE I

FREQUENCY DISTRIBUTION FOR VARIABLE # 3 (SCALE GAIN)

CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT.)	ADJUSTED FREQ (PCT.)	CUMULATIVE FREQ (PCT.)
-35.	1.	0.8	0.8	0.8
-31.	1.	0.8	0.8	1.6
-22.	1.	0.8	0.8	2.5
-16.	2.	1.6	1.6	4.1
-15.	1.	0.8	0.8	4.9
-13.	2.	1.6	1.6	6.6
-12.	4.	3.3	3.3	9.8
-11.	1.	0.8	0.8	10.7
-10.	1.	0.8	0.8	11.5
-9.	1.	0.8	0.8	12.3
-8.	1.	0.8	0.8	13.1
-5.	5.	4.1	4.1	17.2
-4.	4.	3.3	3.3	20.5
-3.	2.	1.6	1.6	22.1
-2.	3.	2.5	2.5	24.6
-1.	7.	5.7	5.7	30.3
0.	2.	1.6	1.6	32.0
1.	3.	2.5	2.5	34.4
2.	2.	1.6	1.6	36.1
3.	2.	1.6	1.6	37.7
4.	1.	0.8	0.8	38.5
5.	4.	3.3	3.3	41.8

6.	3.	2.5	2.5	44.3
7.	1.	0.8	0.8	45.1
8.	2.	1.6	1.6	46.7
9.	2.	1.6	1.6	48.4
10.	3.	2.5	2.5	50.8
11.	1.	0.8	0.8	51.6
12.	2.	1.6	1.6	53.3
13.	4.	3.3	3.3	56.6
14.	5.	4.1	4.1	60.7
15.	2.	1.6	1.6	62.3
16.	3.	2.5	2.5	64.8
17.	5.	4.1	4.1	68.9
18.	4.	3.3	3.3	72.1
19.	1.	0.8	0.8	73.0
20.	1.	0.8	0.8	73.8
22.	2.	1.6	1.6	75.4
23.	2.	1.6	1.6	77.0
24.	2.	1.6	1.6	78.7
25.	5.	4.1	4.1	82.8
27.	4.	3.3	3.3	86.1
28.	1.	0.8	0.8	86.9
29.	2.	1.6	1.6	88.5

32.	3.	2.5	2.5	91.0
34.	2.	1.6	1.6	92.6
36.	1.	0.8	0.8	93.4
37.	1.	0.8	0.8	94.3
46.	1.	0.8	0.8	95.1
47.	2.	1.6	1.6	96.7
51.	1.	0.8	0.8	97.5
55.	1.	0.8	0.8	98.4
57.	1.	0.8	0.8	99.2
75.	1.	0.8	0.8	100.0
TOTAL	122.	100.0	100.0	

VALID CASES= 122
MISSING CASES= 0

MEAN= 10.8361 VARIANCE= 322.5845
STD. DEV= 17.9606 STD. ERR= 1.6261
MAXIMUM= 75.0000 MINIMUM= -35.0000
RANGE= 111.0000

DISTAT - ANALYSIS 19 - PEABODY TESTING PROGRAM -- HAPPY TALK

FREQUENCY DISTRIBUTION FOR VARIABLE # 1 (PRETEST SCALE)

CODE.	ABSOLUTE FREQ	RELATIVE FREQ (PCT.)	ADJUSTED FREQ (PCT.)	CUMULATIVE FREQ (PCT.)
34.	1.	2.2	2.2	2.2
43.	1.	2.2	2.2	4.4
56.	3.	6.7	6.7	11.1
57.	1.	2.2	2.2	13.3
61.	1.	2.2	2.2	15.6
63.	2.	4.4	4.4	20.0
65.	2.	4.4	4.4	24.4
67.	1.	2.2	2.2	26.7
68.	3.	6.7	6.7	33.3
69.	1.	2.2	2.2	35.6
71.	2.	4.4	4.4	40.0
75.	2.	4.4	4.4	44.4
76.	2.	4.4	4.4	48.9
77.	1.	2.2	2.2	51.1
79.	2.	4.4	4.4	55.6
84.	1.	2.2	2.2	57.8
89.	2.	4.4	4.4	62.2
90.	4.	8.9	8.9	71.1
92.	1.	2.2	2.2	73.3
94.	1.	2.2	2.2	75.6
95.	1.	2.2	2.2	77.8
96.	1.	2.2	2.2	80.0
97.	1.	2.2	2.2	82.2
99.	1.	2.2	2.2	84.4
100.	2.	4.4	4.4	88.9
112.	1.	2.2	2.2	91.1
114.	2.	4.4	4.4	95.6
116.	1.	2.2	2.2	97.8
117.	1.	2.2	2.2	100.0
TOTAL	45.	100.0	100.0	

VALID CASES= 45
MISSING CASES= 0

MEAN= 50.1111 VARIANCE= 384.5556
STD. DEV= 19.6101 STD. ERR= 2.9233
MAXIMUM= 117.0000 MINIMUM= 34.0000
RANGE= 84.0000

DISTAT - ANALYSIS 69 - PEABODY TESTING PROGRAM — HAPPY TALK

FREQUENCY DISTRIBUTION FOR VARIABLE # 2 (POSTTEST SCALE)

CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT.)	ADJUSTED FREQ (PCT.)	CUMULATIVE FREQ (PCT.)
56.	1.	2.2	2.2	2.2
57.	1.	2.2	2.2	4.4
59.	1.	2.2	2.2	6.7
67.	2.	4.4	4.4	11.1
69.	2.	4.4	4.4	15.6
71.	1.	2.2	2.2	17.8
73.	1.	2.2	2.2	20.0
75.	1.	2.2	2.2	22.2
76.	2.	4.4	4.4	26.7
78.	4.	8.9	8.9	35.6
82.	2.	4.4	4.4	40.0
83.	1.	2.2	2.2	42.2
84.	1.	2.2	2.2	44.4
85.	4.	8.9	8.9	53.3
87.	1.	2.2	2.2	55.6
89.	1.	2.2	2.2	57.8
91.	3.	6.7	6.7	64.4
95.	1.	2.2	2.2	66.7
96.	1.	2.2	2.2	68.9
97.	2.	4.4	4.4	73.3
99.	2.	4.4	4.4	77.8
100.	1.	2.2	2.2	80.0
101.	1.	2.2	2.2	82.2
103.	1.	2.2	2.2	84.4
106.	2.	4.4	4.4	88.9
109.	1.	2.2	2.2	91.1
111.	2.	4.4	4.4	95.6
114.	1.	2.2	2.2	97.8
116.	1.	2.2	2.2	100.0
TOTAL	45.	100.0	100.0	

VALID CASES= 45
MISSING CASES= 0

MEAN= 96.8222 VARIANCE= 240.4222
STD. DEV= 15.5056 STD. ERR= 2.3114
MAXIMUM= 116.0000 MINIMUM= 56.0000
RANGE= 61.0000

64

DISTAT - ANALYSIS 49 - PEABODY TESTING PROGRAM -- HAPPY TALK

FREQUENCY DISTRIBUTION FOR VARIABLE # 3 (SCALE GAIN)

CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT.)	ADJUSTED FREQ (PCT.)	CUMULATIVE FREQ (PCT.)
-24.	1.	2.2	2.4	2.4
-20.	1.	2.2	2.4	4.9
-15.	1.	2.2	2.4	7.3
-14.	2.	4.4	4.9	12.2
-12.	1.	2.2	2.4	14.6
-9.	1.	2.2	2.4	17.1
-8.	1.	2.2	2.4	19.5
-7.	1.	2.2	2.4	22.0
-6.	2.	4.4	4.9	26.8
-1.	2.	4.4	4.9	31.7
2.	2.	4.4	4.9	36.6
3.	1.	2.2	2.4	39.0
5.	1.	2.2	2.4	41.5
6.	3.	6.7	7.3	48.8
8.	3.	6.7	7.3	56.1
9.	1.	2.2	2.4	58.5
10.	2.	4.4	4.9	63.4
11.	2.	4.4	4.9	68.3
14.	2.	4.4	4.9	73.2
16.	2.	4.4	4.9	78.0
17.	1.	2.2	2.4	80.5
21.	1.	2.2	2.4	82.9
23.	1.	2.2	2.4	85.4
26.	2.	4.4	4.9	90.2
33.	1.	2.2	2.4	92.7
34.	1.	2.2	2.4	95.1
43.	1.	2.2	2.4	97.6
51.	1.	2.2	2.4	100.0
0.	4.	8.9	MISSING	100.0
TOTAL	45.	100.0	100.0	

VALID CASES= 41
MISSING CASES= 4

MEAN= 7.3659 VARIANCE= 271.3878
STD. DEV= 16.4739 STD. ERR= 2.5729
MAXIMUM= 51.0000 MINIMUM= -24.0000
RANGE= 76.0000

*** OUTPUT FROM PROGRAM REGRAN ***

REGRAN - ANALYSIS #2 - PEABODY - TITLE I AND MIGRANT

PARAMETERS
COL 1- 5 = 8
COL 6-10 = 216
COL 11-15 = 5
COL 16-20 = 4
COL 21-25 = 1

DATA FORMAT = (A3,T60,I1,T54,I2,T66,F3.0,T42,F3.0,T32,3F3.0,4(T40,F6.01,T55,3F1.0)

N OF TITLE I STUDENTS = 122
N OF MIGRANT STUDENTS = 94

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8
	96.3009	85.9861	49.2824	36.7037	7771.1250	4581.9954	3259.1296	0.5648

SIGMAS	1	2	3	4	5	6	7	8
	17.3730	19.4297	45.6425	43.7261	3298.2744	4698.3127	4267.8832	0.4958

R MATRIX	1	2	3	4	5	6	7	8
1	1.0000	0.5756	0.2203	0.0258	0.5762	0.2890	0.1272	0.1173
2	0.5756	1.0000	0.3094	0.1214	0.9855	0.4582	0.2572	0.0743
3	0.2203	0.3094	1.0000	-0.9063	0.3110	0.9673	-0.8245	0.9478
4	0.0258	0.1214	-0.9063	1.0000	0.1133	-0.8061	0.9749	-0.9563
5	0.5762	0.9855	0.3110	0.1133	1.0000	0.4755	0.2493	0.0751
6	0.2890	0.4582	0.9673	-0.8061	0.4755	1.0000	-0.7334	0.8430
7	0.1272	0.2572	-0.8245	0.9749	0.2493	-0.7334	1.0000	-0.8700
8	0.1173	0.0743	0.9478	-0.9563	0.0751	0.8430	-0.8700	1.0000

Attachment A-14
(continued, page 2 of 3)

MODEL 1 01 CRITERION = 1

PREDICTORS = 3= 4 6= 8

R = 0.5959 RSQ = 0.3551 51 ITERATICNS.

V	BETA	B
3	0.0	0.0
4	0.0516	0.0205
6	0.6581	0.0024
7	0.9122	0.0037
8	0.4055	14.2078
REG. CONST. =		64.4419

MODEL 2 02 CRITERICN = 1

PREDICTORS = 3= 5 8= 8

R = 0.5976 RSQ = 0.3572 10 ITERATIONS.

V	BETA	B
3	-0.3293	-0.1253
4	0.3211	0.1276
5	0.5903	0.0031
8	0.6931	24.2866
REG. CONST. =		59.9175

MODEL 3 03 CRITERION = 1

PREDICTORS = 3= 4 8= 8

R = 0.5944 RSQ = 0.3533 75 ITERATIONS.

V	BETA	B
3	1.1011	0.4191
4	1.5899	0.6317
8	0.5941	20.8194
REG. CONST. =		40.7009

MODEL 4 04 CRITERION = 1

PREDICTORS = 2= 2 8= 8

R = 0.5804 RSQ = 0.3369 2 ITERATICNS.

V	BETA	B
2	0.5700	0.5097
8	0.0750	2.6264
REG. CONST. =		50.9933

69

```
MODEL  5 05  CRITERION =  1

PREDICTORS =  2= 2

R = 0.5756     RSQ = 0.3313          1 ITERATIONS.

 V      BETA        B
 2     0.5756     0.5146
REG. CONST. =    52.0484


F-TEST  1   F-TEST MODEL COMPARISONS = MODEL 1 VS MODEL 2
RSQ FULL =     0.3551      MODEL  1
RSQ REDUCED = 0.3572       MODEL  2
DIFFERENCE = -0.0020
DFN =  1.      DFD =  210.      F-RATIO =    0.0      P = 1.0000


F-TEST  2   F-TEST MODEL COMPARISONS = MODEL 2 VS MODEL 3
RSQ FULL =     0.3572      MODEL  2
RSQ REDUCED = 0.3533       MODEL  3
DIFFERENCE =  0.0039
DFN =  1.      DFD =  211.      F-RATIO =    1.274    P = 0.2592


F-TEST  3   F-TEST MODEL COMPARISONS = MODEL 3 VS MODEL 4
RSQ FULL =     0.3533      MODEL  3
RSQ REDUCED = 0.3369       MODEL  4
DIFFERENCE =  0.0164
DFN =  1.      DFD =  212.      F-RATIO =    5.383    P = 0.0201


F-TEST  4   F-TEST MODEL COMPARISONS = MODEL 4 VS MODEL 5
RSQ FULL =     0.3369      MODEL  4
RSQ REDUCED = 0.3313       MODEL  5
DIFFERENCE =  0.0056
DFN =  1.      DFD =  213.      F-RATIO =    1.794    P = 0.1784
```

*** OUTPUT FROM PROGRAM REGRAN ***

REGRAN - ANALYSIS #1 - PEABODY - TITLE I, MIGRANT, AND HAPPY TALK

80.71

PARAMETERS
COL 1-5 = 12
COL 6-10 = 261
COL 11-15 = 5
COL 16-20 = 4
COL 21-25 = 1

DATA FORMAT = (A3,T60,I1,T54,I2,T66,F3.0,T42,F3.0,T32,3F3.0,4(T40,F6.0),T55,3F1.0)

N OF TITLE I STUDENTS = 122
N OF MIGRANT STUDENTS = 94
N OF HAPPY TALK STUDENTS = 45
N OF TITLE I'S WITH TEACHERS < 10 = 122
N OF MIGRANT'S WITH TEACHERS > 7 = 94

A-45

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7
	94.6667	84.9732	40.7854	30.3755	13.8123	7602.6207	3734.0651
MEANS	8	9	10	11	12		
	2697.2107	1171.3448	0.4674	0.3602	0.1724		
SIGMAS	1	2	3	4	5	6	7
	17.4107	19.5494	45.5040	42.1253	31.3140	3294.7368	4601.4234
SIGMAS	8	9	10	11	12		
	4073.0767	2881.2921	0.4989	0.4800	0.3777		

Attachment A-15
(Page 1 of 4)

R MATRIX	1	2	3	4	5	6	7
1	1.0000	0.5883	0.2666	0.0898	-0.1409	0.5925	0.3198
2	0.5883	1.0000	0.3017	0.1410	-0.0038	0.9861	0.4269
3	0.2666	0.3017	1.0000	-0.6463	-0.3954	0.3043	0.9714
4	0.0898	0.1410	-0.6463	1.0000	-0.3181	0.1343	-0.5852
5	-0.1409	-0.0038	-0.3954	-0.3181	1.0000	-0.0072	-0.3579
6	0.5925	0.9861	0.3043	0.1343	-0.0072	1.0000	0.4438
7	0.3198	0.4269	0.9714	-0.5852	-0.3579	0.4438	1.0000
8	0.1722	0.2559	-0.5935	0.9770	-0.2921	0.2503	-0.5374
9	-0.0767	0.0841	-0.3644	-0.2931	0.9763	0.0810	-0.3299
10	0.1842	0.1093	0.9567	-0.6755	-0.4132	0.1097	0.8662
11	-0.0296	-0.0243	-0.6725	0.9611	-0.3309	-0.0259	-0.6088
12	-0.2056	-0.1135	-0.4091	-0.3291	0.9664	-0.1120	-0.3704

R MATRIX	8	9	10	11	12
1	0.1722	-0.0767	0.1842	-0.0296	-0.2056
2	0.2559	0.0841	0.1093	-0.0243	-0.1135
3	-0.5935	-0.3644	0.9567	-0.6725	-0.4091
4	0.9770	-0.2931	-0.6755	0.9611	-0.3291
5	-0.2921	0.9763	-0.4132	-0.3309	0.9664
6	0.2503	0.0810	0.1097	-0.0259	-0.1120
7	-0.5374	-0.3299	0.8662	-0.6088	-0.3704
8	1.0000	-0.2692	-0.6204	0.8826	-0.3023
9	-0.2692	1.0000	-0.3809	-0.3050	0.8907
10	-0.6204	-0.3809	1.0000	-0.7029	-0.4276
11	0.8826	-0.3050	-0.7029	1.0000	-0.3424
12	-0.3023	0.8907	-0.4276	-0.3424	1.0000

Attachment A-15
(continued, page 2 of 4)

Attachment A-15
(continued, page 3 of 4)

MODEL 1 01 CRITERION = 1

PREDICTORS = 3= 5 7=12

R = 0.6240 RSQ = 0.3894 33 ITERATIONS.

V	BETA	B
3	0.0	0.0
4	0.0038	0.0016
5	0.0	0.0
7	0.6518	0.0025
8	0.8942	0.0038
9	0.5025	0.0030
10	0.3495	12.1963
11	-0.0267	-0.9694
12	0.0	0.0
REG. CONST. =		66.1928

MODEL 2 02 CRITERION = 1

PREDICTORS = 3= 6 10=12

R = 0.6251 RSQ = 0.3908 64 ITERATIONS.

V	BETA	B
3	-0.4900	-0.1875
4	0.1331	0.0550
5	-0.0792	-0.0440
6	0.6577	0.0035
10	0.1641	5.7256
11	-0.4871	-17.6650
12	-0.3111	-14.3385
REG. CONST. =		80.9857

MODEL 3 03 CRITERION = 1

PREDICTORS = 3= 5 10=12

R = 0.6195 RSQ = 0.3837 100 ITERATIONS.

V	BETA	B
3	1.0972	0.4198
4	1.5105	0.6243
5	0.9067	0.5041
10	0.3699	12.9071
11	-0.1991	-7.2219
12	-0.0454	-2.0932
REG. CONST. =		48.5454

```
MODEL  4 04  CRITERION =  1

PREDICTORS =  2= 2 10=12

R = 0.6085     RSQ = 0.3703          4 ITERATIONS.

  V       BETA        B
  2     0.5677     0.5056
 10     0.0        0.0
 11    -0.0751    -2.7249
 12    -0.1658    -7.6424
REG. CONST. =    54.0071


MODEL  5 05  CRITERION =  1

PREDICTORS =  2= 2

R = 0.5883     RSQ = 0.3461          1 ITERATIONS.

  V       BETA        B
  2     0.5883     0.5239
REG. CONST. =    50.1456


F=TEST  1   F=TEST MODEL COMPARISONS = MODEL 1 VS MODEL=2
RSQ FULL =     0.3894      MODEL  1
RSQ REDUCED =  0.3908      MODEL  2
DIFFERENCE = -0.0013
DFN =  2.      DFD =  232.      F=RATIO =    0.0      P = 1.0000


F=TEST  2   F=TEST MODEL COMPARISONS = MODEL 2 VS MODEL 3
RSQ FULL =     0.3908      MODEL  2
RSQ REDUCED =  0.3837      MODEL  3
DIFFERENCE =   0.0070
DFN =  1.      DFD =  234.      F=RATIO =    2.700    P = 0.0976


F=TEST  3   F=TEST MODEL COMPARISONS = MODEL 3 VS MODEL 4
RSQ FULL =     0.3837      MODEL  3
RSQ REDUCED =  0.3703      MODEL  4
DIFFERENCE =   0.0135
DFN =  2.      DFD =  235.      F=RATIO =    2.568    P = 0.0768


F=TEST  4   F=TEST MODEL COMPARISONS = MODEL 4 VS MODEL 5
RSQ FULL =     0.3703      MODEL  4
RSQ REDUCED =  0.3461      MODEL  5
DIFFERENCE =   0.0242
DFN =  2.      DFD =  237.      F=RATIO =    4.550    P = 0.0115
```

*** OUTPUT FROM PROGRAM REGRAN CCN

REGRAN - ANALYSIS #5 - PEABODY - ELEGANT AND SPLIT-FORM CLASSES

PARAMETERS
COL 1- 5 = 20
COL 6-10 = 94
COL 11-15 = 3
COL 16-20 = 2
COL 21-25 = 1

DATA FORMAT = 1A3,T60,I1,T54,I2,T66,F3.0,T42,F3.0,9(T32,F3.0),9(F1.0))

80.71

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8	9	10
	93.9787	84.3404	3.6277	7.4362	6.5106	7.7872	17.7553	8.2021	8.7553	14.6915

MEANS	11	12	13	14	15	16	17	18	19	20
	9.5745	0.0532	0.0851	0.0851	0.0957	0.1915	0.0957	0.1170	0.1596	0.1170

SIGMAS	1	2	3	4	5	6	7	8	9	10
	18.9214	19.3844	15.8765	25.0479	22.0472	24.7824	37.4045	25.7854	24.5629	34.1181

SIGMAS	11	12	13	14	15	16	17	18	19	20
	27.1596	0.2244	0.2790	0.2790	0.2942	0.3935	0.2942	0.3214	0.3662	0.3214

R MATRIX	1	2	3	4	5	6	7	8	9	10
1	1.0000	0.6567	0.0511	0.1003	-0.0959	0.0031	0.1689	0.0226	-0.0953	0.1671
2	0.6567	1.0000	-0.1324	0.1144	-0.0483	0.0375	0.2991	0.0808	-0.1227	0.2129
3	0.0511	-0.1324	1.0000	-0.0678	-0.0675	-0.0718	-0.1085	-0.0727	-0.0814	-0.0984
4	0.1003	0.1144	-0.0678	1.0000	-0.0877	-0.0933	-0.1409	-0.0944	-0.1058	-0.1278
5	-0.0959	-0.0483	-0.0675	-0.0877	1.0000	-0.0928	-0.1402	-0.0939	-0.1053	-0.1272
6	0.0031	0.0375	-0.0718	-0.0933	-0.0928	1.0000	-0.1492	-0.1000	-0.1120	-0.1353
7	0.1689	0.2991	-0.1085	-0.1409	-0.1402	-0.1492	1.0000	-0.1510	-0.1692	-0.2044
8	0.0226	0.0808	-0.0727	-0.0944	-0.0939	-0.1000	-0.1510	1.0000	-0.1134	-0.1370
9	-0.0953	-0.1227	-0.0814	-0.1058	-0.1053	-0.1120	-0.1692	-0.1134	1.0000	-0.1535
10	0.1671	0.2129	-0.0984	-0.1278	-0.1272	-0.1353	-0.2044	-0.1370	-0.1535	1.0000
11	0.0435	0.0455	-0.0804	-0.1045	-0.1039	-0.1106	-0.1671	-0.1120	-0.1255	-0.1516
12	0.0303	-0.1974	0.9640	-0.0704	-0.0700	-0.0745	-0.1125	-0.0754	-0.0845	-0.1021
13	0.0568	0.0477	-0.0697	0.9714	-0.0901	-0.0958	-0.1448	-0.0970	-0.1087	-0.1313
14	-0.1645	-0.1234	-0.0697	-0.0905	0.9682	-0.0958	-0.1448	-0.0970	-0.1087	-0.1313

Attachment A-16
(Page 1 of 3)

16	0.1091	0.2104	-0.1112	-0.1445	-0.1437	-0.1522	0.9754	-0.1548	-0.1735	-0.2096
17	-0.0321	0.0223	-0.0744	-0.0966	-0.0961	-0.1022	-0.1545	0.9776	-0.1160	-0.1401
18	-0.1255	-0.1788	-0.0832	-0.1081	-0.1075	-0.1144	-0.1728	-0.1158	0.9791	-0.1568
19	0.1448	0.1737	-0.0996	-0.1294	-0.1287	-0.1369	-0.2068	-0.1386	-0.1553	0.9882
20	-0.0153	-0.0474	-0.0832	-0.1081	-0.1075	-0.1144	-0.1728	-0.1158	-0.1298	-0.1568

K MATRIX	11	12	13	14	15	16	17	18	19	20
1	0.0435	0.0303	0.0568	-0.1649	-0.0608	0.1091	-0.0321	-0.1255	0.1448	-0.0153
2	0.0455	-0.1974	0.0477	-0.1234	-0.0505	0.2104	0.0223	-0.1788	0.1737	-0.0474
3	-0.0804	0.9640	-0.0697	-0.0697	-0.0744	-0.1112	-0.0744	-0.0832	-0.0996	-0.0832
4	-0.1045	-0.0704	0.9734	-0.0905	-0.0966	-0.1445	-0.0966	-0.1081	-0.1294	-0.1081
5	-0.1039	-0.0700	-0.0901	0.9682	-0.0961	-0.1437	-0.0961	-0.1075	-0.1287	-0.1075
6	-0.1106	-0.0745	-0.0958	-0.0958	0.9657	-0.1525	-0.1022	-0.1144	-0.1369	-0.1144
7	-0.1671	-0.1125	-0.1448	-0.1448	-0.1545	0.9754	-0.1545	-0.1728	-0.2068	-0.1728
8	-0.1120	-0.0754	-0.0970	-0.0970	-0.1035	-0.1548	0.9776	-0.1158	-0.1386	-0.1158
9	-0.1255	-0.0845	-0.1087	-0.1087	-0.1160	-0.1735	-0.1160	0.9791	-0.1553	-0.1298
10	-0.1516	-0.1021	-0.1313	-0.1313	-0.1401	-0.2096	-0.1401	-0.1568	0.9882	-0.1568
11	1.0000	-0.0834	-0.1074	-0.1074	-0.1145	-0.1713	-0.1145	-0.1281	-0.1534	0.9669
12	-0.0834	1.0000	-0.0723	-0.0723	-0.0771	-0.1154	-0.0771	-0.0863	-0.1033	-0.0863
13	-0.1074	-0.0723	1.0000	-0.0930	-0.0992	-0.1484	-0.0992	-0.1110	-0.1329	-0.1110
14	-0.1074	-0.0723	-0.0930	1.0000	-0.0992	-0.1484	-0.0992	-0.1110	-0.1329	-0.1110
15	-0.1145	-0.0771	-0.0992	-0.0992	1.0000	-0.1584	-0.1059	-0.1185	-0.1418	-0.1185
16	-0.1713	-0.1154	-0.1484	-0.1484	-0.1584	1.0000	-0.1584	-0.1772	-0.2121	-0.1772
17	-0.1145	-0.0771	-0.0992	-0.0992	-0.1059	-0.1584	1.0000	-0.1185	-0.1418	-0.1185
18	-0.1281	-0.0863	-0.1110	-0.1110	-0.1185	-0.1772	-0.1185	1.0000	-0.1586	-0.1325
19	-0.1534	-0.1033	-0.1329	-0.1329	-0.1418	-0.2121	-0.1418	-0.1586	1.0000	-0.1586
20	0.9669	-0.0863	-0.1110	-0.1110	-0.1185	-0.1772	-0.1185	-0.1325	-0.1586	1.0000

Attachment A-16
(continued, page 2 of 3)

```
MODEL  1 01  CRITERION =  1

PREDICTORS =  3-20

R = 0.6936      RSQ = 0.4811        379 ITERATIONS.

  V       BETA         B
  3     0.3544     0.4223
  4     0.8349     0.6307
  5     1.0032     0.8610
  6     0.8709     0.6650
  7     1.3561     0.6860
  8     1.1422     0.8382
  9     0.7398     0.5699
 10     1.1030     0.6117
 11     0.8798     0.6093
 12     0.2815    23.7350
 13    -0.0220    -1.4890
 14    -0.3833   -25.9897
 15    -0.1149    -7.3865
 16    -0.1940    -9.3285
 17    -0.3639   -23.3985
 18     0.0162     0.9539
 19     0.0        0.0
 20    -0.0079    -0.4642
REG. CONST. =    43.8613


MODEL  2 02  CRITERION =  1

PREDICTORS =  2- 2 12-20

R = 0.6836      RSQ = 0.4672        13 ITERATIONS.

  V       BETA         B
  2     0.6792     0.6629
 12     0.1564    13.0208
 13     0.0174     1.1769
 14    -0.0758    -5.1399
 15    -0.0298    -1.9139
 16    -0.0329    -1.5827
 17    -0.0458    -2.9473
 18    -0.0065    -0.3832
 19     0.0195     1.0055
 20     0.0141     0.8300
REG. CONST. =    38.2672


MODEL  3 03  CRITERION =  1

PREDICTORS =  2- 2

R = 0.6567      RSQ = 0.4312        1 ITERATIONS.

  V       BETA         B
  2     0.6567     0.6410
REG. CONST. =    39.9193


F-TEST  1   F-TEST MODEL COMPARISONS = MODEL 1 VS MODEL 2
RSQ FULL =    0.4811      MODEL  1
RSQ REDUCED = 0.4672      MODEL  2
DIFFERENCE =  0.0139
DFN =  8.     DFD =   76.     F-RATIO =   0.254   P = 0.9775

F-TEST  2   F-TEST MODEL COMPARISONS = MODEL 2 VS MODEL 3
RSQ FULL =    0.4672      MODEL  2
RSQ REDUCED = 0.4312      MODEL  3
DIFFERENCE =  0.0361
DFN =  9.     DFD =   94.     F-RATIO =   0.711   P = 0.6931
```

*** OUTPUT FROM PEARSON REGRESSION ***

TEORAN - ANALYSIS #4 - PEABODY - TITLE I AND SPECIAL EDUCATION

PARAMETERS
COL 1- 5 = 20
COL 6-10 = 122
COL 11-15 = 3
COL 16-20 = 2
COL 21-25 = 1

DATA FORMAT = (A3,I60,I1,I54,I2,I66,F3.0,I42,F3.0,9I132,F3.0,F3.0,9IF3.0)

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8	9	10
	98.0902	87.2541	10.7295	12.5584	10.9036	8.4918	12.4754	9.8279	11.8361	4.6311
MEANS	11	12	13	14	15	16	17	18	19	20
	5.6803	0.1230	0.1230	0.1148	0.1148	0.1393	0.1148	0.1393	0.0656	0.0656
SIGMAS	1	2	3	4	5	6	7	8	9	10
	15.8482	19.3694	29.4563	33.7890	31.0512	24.9699	32.1608	27.6203	30.0189	17.7206
SIGMAS	11	12	13	14	15	16	17	18	19	20
	21.5970	0.3284	0.3284	0.3187	0.3187	0.3463	0.3187	0.3463	0.2475	0.2475

R MATRIX	1	2	3	4	5	6	7	8	9	10
1	1.0000	0.4991	0.0372	0.2637	-0.0040	-0.0103	-0.0185	0.0181	0.1341	-0.1259
2	0.4991	1.0000	0.0817	0.3074	0.2103	-0.0937	0.1628	0.0036	0.0146	-0.1499
3	0.0372	0.0817	1.0000	-0.1358	-0.1288	-0.1239	-0.1413	-0.1296	-0.1436	-0.0952
4	0.2637	0.3074	-0.1358	1.0000	-0.1319	-0.1268	-0.1446	-0.1327	-0.1470	-0.0974
5	-0.0040	0.2103	-0.1288	-0.1319	1.0000	-0.1203	-0.1372	-0.1259	-0.1395	-0.0924
6	-0.0103	-0.0937	-0.1239	-0.1268	-0.1203	1.0000	-0.1319	-0.1210	-0.1341	-0.0889
7	-0.0185	0.1628	-0.1413	-0.1446	-0.1372	-0.1319	1.0000	-0.1380	-0.1529	-0.1014
8	0.0181	0.0036	-0.1296	-0.1327	-0.1259	-0.1210	-0.1380	1.0000	-0.1403	-0.0930
9	0.1341	0.0146	-0.1436	-0.1470	-0.1395	-0.1341	-0.1529	-0.1403	1.0000	-0.1030
10	-0.1259	-0.1499	-0.0952	-0.0974	-0.0924	-0.0889	-0.1014	-0.0930	-0.1030	1.0000
11	-0.0765	0.0073	-0.0958	-0.0981	-0.0930	-0.0894	-0.1020	-0.0936	-0.1037	-0.0687
12	0.0057	0.0002	0.9729	-0.1390	-0.1324	-0.1274	-0.1452	-0.1332	-0.1476	-0.0979
13	0.2584	0.2941	-0.1364	0.9998	-0.1324	-0.1273	-0.1452	-0.1332	-0.1476	-0.0979
14	-0.0167	0.1573	-0.1311	-0.1364	0.9829	-0.1224	-0.1397	-0.1281	-0.1420	-0.0941

16	-0.1277	0.0473	-0.1466	-0.1500	-0.1423	-0.1368	0.9640	-0.1432	-0.1587	-0.1052
17	0.0012	-0.0300	-0.1311	-0.1342	-0.1274	-0.1224	-0.1397	0.9883	-0.1420	-0.0941
18	0.1112	-0.0480	-0.1466	-0.1500	-0.1423	-0.1368	-0.1561	-0.1432	0.9799	-0.1052
19	-0.1540	-0.2274	-0.0965	-0.0988	-0.0937	-0.0901	-0.1028	-0.0943	-0.1044	0.9865
20	-0.0851	-0.0086	-0.0965	-0.0988	-0.0937	-0.0901	-0.1028	-0.0943	-0.1044	-0.0692

K MATRIX	11	12	13	14	15	16	17	18	19	20
1	-0.0765	0.0057	0.2514	-0.0167	-0.0459	-0.1277	0.0012	0.1112	-0.1540	-0.0851
2	0.0073	0.0002	0.2941	0.1573	-0.2464	0.0473	-0.0300	-0.0480	-0.2274	-0.0086
3	-0.0958	0.9729	-0.1364	-0.1311	-0.1311	-0.1466	-0.1311	-0.1466	-0.0965	-0.0965
4	-0.0981	-0.1396	0.9958	-0.1342	-0.1342	-0.1500	-0.1342	-0.1500	-0.0988	-0.0988
5	-0.0930	-0.1324	-0.1324	0.9825	-0.1274	-0.1423	-0.1274	-0.1423	-0.0937	-0.0937
6	-0.0894	-0.1274	-0.1274	-0.1224	0.9446	-0.1368	-0.1224	-0.1368	-0.0901	-0.0901
7	-0.1020	-0.1452	-0.1452	-0.1397	-0.1397	0.9640	-0.1397	-0.1561	-0.1028	-0.1028
8	-0.0936	-0.1332	-0.1332	-0.1281	-0.1281	-0.1432	0.9883	-0.1432	-0.0943	-0.0943
9	-0.1037	-0.1476	-0.1476	-0.1420	-0.1420	-0.1587	-0.1420	0.9799	-0.1044	-0.1044
10	-0.0681	-0.0979	-0.0979	-0.0941	-0.0941	-0.1052	-0.0941	-0.1052	0.9865	-0.0692
11	1.0000	-0.0985	-0.0985	-0.0947	-0.0947	-0.1058	-0.0947	-0.1058	-0.0697	0.9929
12	-0.0985	1.0000	-0.1402	-0.1348	-0.1348	-0.1507	-0.1348	-0.1507	-0.0992	-0.0992
13	-0.0985	-0.1402	1.0000	-0.1348	-0.1348	-0.1507	-0.1348	-0.1507	-0.0992	-0.0992
14	-0.0947	-0.1348	-0.1348	1.0000	-0.1296	-0.1449	-0.1296	-0.1449	-0.0954	-0.0954
15	-0.0947	-0.1348	-0.1348	-0.1296	1.0000	-0.1449	-0.1296	-0.1449	-0.0954	-0.0954
16	-0.1058	-0.1507	-0.1507	-0.1449	-0.1449	1.0000	-0.1449	-0.1619	-0.1066	-0.1066
17	-0.0947	-0.1348	-0.1348	-0.1296	-0.1296	-0.1449	1.0000	-0.1449	-0.0954	-0.0954
18	-0.1058	-0.1507	-0.1507	-0.1449	-0.1449	-0.1619	-0.1449	1.0000	-0.1066	-0.1066
19	-0.0697	-0.0992	-0.0992	-0.0954	-0.0954	-0.1066	-0.0954	-0.1066	1.0000	-0.0702
20	0.9929	-0.0992	-0.0992	-0.0954	-0.0954	-0.1066	-0.0954	-0.1066	-0.0702	1.0000

```
MODEL  1 01  CRITERION =  1

PREDICTORS =  3-20

R = 0.6134    RSQ = 0.3762       209 ITERATIONS.

  V       BETA         B
  3     0.5945     0.3199
  4     1.7569     0.8240
  5     0.4270     0.2180
  6     0.3347     0.2125
  7     1.4302     0.7048
  8     0.5743     0.3295
  9     0.7195     0.3798
 10     1.0153     0.9080
 11     0.3587     0.2632
 12     0.0        0.0
 13    -0.9545    -6.0635
 14     0.1201     5.9739
 15     0.1982     9.8564
 16    -0.8820    -0.3656
 17    -0.0077    -0.3851
 18    -0.0072    -0.3276
 19    -0.7136    -5.6904
 20    -0.0035    -0.2265
REG. CONST. =    70.4236


MODEL  2 02  CRITERION =  1

PREDICTORS =  2- 2 12-20

R = 0.5615    RSQ = 0.3153       15 ITERATIONS.

  V       BETA         B
  2     0.5067     0.4145
 12    -0.0221    -1.0669
 13     0.0611     2.9477
 14    -0.1143    -5.6832
 15     0.0444     2.2080
 16    -0.1589    -7.2699
 17    -0.0136    -0.6752
 18     0.0869     3.9786
 19    -0.0595    -3.8121
 20    -0.0969    -6.2067
REG. CONST. =    63.2800


MODEL  3 03  CRITERION =  1

PREDICTORS =  2- 2

R = 0.4991    RSQ = 0.2491       1 ITERATIONS.

  V       BETA         B
  2     0.4991     0.4083
REG. CONST. =    62.4608


F-TEST  1   F-TEST MODEL COMPARISONS = MODEL 1 VS MODEL 2
RSQ FULL =    0.3762      MODEL  1
RSQ REDUCED = 0.3153      MODEL  2
DIFFERENCE =  0.0609
DFN =  1.     DFD =  104.     F-RATIO =  10.138    P = 0.0023


F-TEST  2   F-TEST MODEL COMPARISONS = MODEL 2 VS MODEL 3
RSQ FULL =    0.3153      MODEL  2
RSQ REDUCED = 0.2491      MODEL  3
DIFFERENCE =  0.0662
DFN =  1.     DFD =  112.     F-RATIO =  10.837    P = 0.0013
```

*** OUTPUT FROM PROGRAM REGRAN ***

REGRAN - ANALYSIS #6 - PEABODY - HAPPY TALK AND 1979/80 CONTROL

PARAMETERS
COL 1- 5 = 8
COL 6-10 = 71
COL 11-15 = 5
COL 16-20 = 4
COL 21-25 = 1

DATA FORMAT = 1A3,T60,I1,T66,F3.0,T42,F3.0,T32,2F3.0,3(T40,F6.0),T55,1F1.0)

N OF HAPPY TALK STUDENTS = 45
N OF CONTROL STUDENTS = 26

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8
	84.1972	79.4789	50.7746	28.7042	6640.1549	4405.9296	2334.2254	0.6338

SIGMAS	1	2	3	4	5	6	7	8
	16.9071	17.9795	41.5676	38.8625	2916.4252	4125.6206	3403.9405	0.4818

R MATRIX	1	2	3	4	5	6	7	8
1	1.0000	0.4302	0.3544	-0.1801	0.4394	0.4435	-0.1610	0.2043
2	0.4302	1.0000	0.3618	0.0756	0.9898	0.5537	0.1770	0.0463
3	0.3544	0.3618	1.0000	-0.9022	0.3807	0.9602	-0.8376	0.9285
4	-0.1801	0.0756	-0.9022	1.0000	0.0507	-0.7709	0.9778	-0.9717
5	0.4394	0.9898	0.3807	0.0507	1.0000	0.5791	0.1547	0.0693
6	0.4435	0.5537	0.9602	-0.7709	0.5791	1.0000	-0.7157	0.7933
7	-0.1610	0.1770	-0.8376	0.9778	0.1547	-0.7157	1.0000	-0.9022
8	0.2043	0.0463	0.9285	-0.9717	0.0693	0.7933	-0.9022	1.0000

MODEL 1 01 CRITERION = 1

PREDICTORS = 3= 4 6= 8

R = 0.5426 RSQ = 0.2945 1000 ITERATIONS.

V	BETA	B
3	-2.7733	-1.1280
4	3.6701	1.5967
6	2.4325	0.0100
7	-1.8502	-0.0092
8	2.7501	96.5113
REG. CONST. =		12.9980

MODEL 2 02 CRITERION = 1

PREDICTORS = 3= 5 8= 8

R = 0.4980 RSQ = 0.2480 22 ITERATIONS.

V	BETA	B
3	0.0	0.0
4	-0.7557	-0.3288
5	0.5168	0.0030
8	-0.5637	-19.7838
REG. CONST. =		86.2778

MODEL 3 03 CRITERION = 1

PREDICTORS = 3= 4 8= 8

R = 0.4945 RSQ = 0.2445 57 ITERATIONS.

V	BETA	B
3	1.2030	0.4893
4	0.2797	0.1217
8	-0.6438	-22.5934
REG. CONST. =		70.1793

MODEL 4 04 CRITERION = 1

PREDICTORS = 2= 2 8= 8

R = 0.4681 RSQ = 0.2192 2 ITERATIONS.

V	BETA	B
2	0.4217	0.3965
8	0.1848	6.4838
REG. CONST. =		48.5727

```
MODEL  5 05  CRITERION =  1

PREDICTORS = 2= 2

R = 0.4302     RSQ = 0.1851          1 ITERATIONS.

  V       BETA        B
  2     0.4302     0.4046
REG. CONST. =    52.0434


F-TEST  1   F-TEST MODEL COMPARISONS = MODEL 1 VS MODEL 2
RSQ FULL =     0.2945      MODEL  1
RSQ REDUCED =  0.2480      MODEL  2
DIFFERENCE =   0.0464
DFN =  1.      DFD =    65.      F-RATIO =    4.278   P = 0.0401


F-TEST  2   F-TEST MODEL COMPARISONS = MODEL 2 VS MODEL 3
RSQ FULL =     0.2480      MODEL  2
RSQ REDUCED =  0.2445      MODEL  3
DIFFERENCE =   0.0035
DFN =  1.      DFD =    66.      F-RATIO =    0.307   P = 0.5980


F-TEST  3   F-TEST MODEL COMPARISONS = MODEL 2 VS MODEL 3
RSQ FULL =     0.2445      MODEL  3
RSQ REDUCED =  0.2192      MODEL  4
DIFFERENCE =   0.0254
DFN =  1.      DFD =    67.      F-RATIO =    2.251   P = 0.1344


F-TEST  4   F-TEST MODEL COMPARISONS = MODEL 2 VS MODEL 3
RSQ FULL =     0.2192      MODEL  4
RSQ REDUCED =  0.1851      MODEL  5
DIFFERENCE =   0.0341
DFN =  1.      DFD =    68.      F-RATIO =    2.966   P = 0.0858
```

*** OUTPUT FROM PROGRAM REGRAN ***

REGRAN - ANALYSIS #3 - PEABODY - TITLE I AND HAPPY TALK

PARAMETERS
COL 1- 5 = 8
COL 6-10 = 167
COL 11-15 = 5
COL 16-20 = 4
COL 21-25 = 1

DATA FORMAT = (A3,T60,I1,T54,I2,T66,F3.0,I42,F3.0,T32,F3.0,4(T40,F6.0),T55,3(I1,0)

N OF TITLE I STUDENTS = 122
N OF HAPPY TALK STUDENTS = 45

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8
	95.0539	85.3293	61.7425	21.5868	7666.5389	5835.8743	1830.6647	0.7305

SIGMAS	1	2	3	4	5	6	7	8
	16.4871	19.6327	42.1042	36.9415	3350.4750	4563.4412	3430.4146	0.4437

R MATRIX	1	2	3	4	5	6	7	8
1	1.0000	0.5468	0.4400	-0.2109	0.5623	0.5022	-0.1189	0.3032
2	0.5468	1.0000	0.4800	-0.0156	0.9834	0.6466	0.1002	0.1614
3	0.4400	0.4800	1.0000	-0.8847	0.4765	0.9572	-0.8079	0.9195
4	-0.2109	-0.0156	-0.8847	1.0000	-0.0205	-0.7473	0.9741	-0.9622
5	0.5623	0.9834	0.4765	-0.0205	1.0000	0.6633	0.0943	0.1582
6	0.5022	0.6466	0.9572	-0.7473	0.6633	1.0000	-0.6825	0.7767
7	-0.1189	0.1002	-0.8079	0.9741	0.0943	-0.6825	1.0000	-0.8787
8	0.3032	0.1614	0.9195	-0.9622	0.1582	0.7767	-0.8787	1.0000

MODEL 1 01 CRITERION = 1

PREDICTORS = 3= 4 6= 8

R = 0.6072 RSQ = 0.3687 120 ITERATIONS.

V	BETA	B
3	-0.2952	-0.1156
4	-0.2721	-0.1214
6	0.8514	0.0031
7	0.8084	-0.0039
8	0.3620	13.4504
REG. CONST. =		70.1536

MODEL 2 02 CRITERION = 1

PREDICTORS = 3= 5 8= 8

R = 0.6064 RSQ = 0.3677 34 ITERATIONS.

V	BETA	B
3	-0.3366	-0.1318
4	-0.0302	-0.0135
5	0.6452	0.0032
8	0.4835	17.9666
REG. CONST. =		66.2807

MODEL 3 03 CRITERION = 1

PREDICTORS = 3= 4 8= 8

R = 0.5899 RSQ = 0.3480 46 ITERATIONS.

V	BETA	B
3	1.0588	0.4146
4	1.0660	0.4758
8	0.3527	13.1045
REG. CONST. =		48.7821

MODEL 4 04 CRITERION = 1

PREDICTORS = 2= 2 8= 8

R = 0.5886 RSQ = 0.3465 2 ITERATIONS.

V	BETA	B
2	0.5112	0.4293
8	0.2207	8.2015
REG. CONST. =		52.4310

```
MODEL  5 05  CRITERION =  1

PREDICTORS =  2= 2

R = 0.5468      RSQ = 0.2990          1 ITERATIONS.

  V       BETA        B
  2     0.5468     0.4592
REG. CONST. =    55.8695


F-TEST  1   F-TEST MODEL COMPARISONS = MODEL 1 VS MODEL 2
RSQ FULL =     0.3687      MODEL  1
RSQ REDUCED =  0.3677      MODEL  2
DIFFERENCE =   0.0010
OFN =  1.      OFD =  161.      F-RATIO =    0.263    P = 0.6149


F-TEST  2   F-TEST MODEL COMPARISONS = MODEL 2 VS MODEL 3
RSQ FULL =     0.3677      MODEL  2
RSQ REDUCED =  0.3480      MODEL  3
DIFFERENCE =   0.0196
OFN =  1.      OFD =  162.      F-RATIO =    5.033    P = 0.0246


F-TEST  3   F-TEST MODEL COMPARISONS = MODEL 3 VS MODEL 4
RSQ FULL =     0.3480      MODEL  3
RSQ REDUCED =  0.3465      MODEL  4
DIFFERENCE =   0.0016
OFN =  1.      OFD =  163.      F-RATIO =    0.389    P = 0.5411


F-TEST  4   F-TEST MODEL COMPARISONS = MODEL 4 VS MODEL 5
RSQ FULL =     0.3465      MODEL  4
RSQ REDUCED =  0.2990      MODEL  5
DIFFERENCE =   0.0474
OFN =  1.      OFD =  164.      F-RATIO =   11.905    P = 0.0011
```

ESEA Title I

Appendix B

BOEHM TEST OF BASIC CONCEPTS

Instrument Description. Boehm Test of Basic Concepts (BTBC)

Brief description of the instrument.

Fifty items arranged in order of their difficulty. Each item consists of a set of pictures about which statements are read to the students. These statements briefly describe the pictures and ask the child to mark the one illustrating the concept area.

To whom was the instrument administered?

All kindergarten students.

How many times was the instrument administered?

Once to all kindergarten students, and once to all kindergarten students in Title I schools.

When was the instrument administered?

September 8-12, 1980. Make-up tests were administered the following week. Title I Posttesting took place February 9-13, with make-ups the following week.

Where was the instrument administered?

In the classroom.

Who administered the instrument?

The classroom teacher.

What training did the administrators have?

The Boehm comes with a complete set of instructions for administering the test. ORE provided each teacher with a checklist to help structure the activities surrounding the test administration. No attempt was made to monitor training activities provided on campus by the Principal and/or counselors.

Was the instrument administered under standardized conditions?

Standardized instructions were distributed. Individual variations in administration procedures may have occurred.

Were there problems with the instrument or the administration that might affect the validity of the data?

None that SWT staff is aware of.

Who developed the instrument?

Ann E. Boehm, published by the Psychological Corporation.

What reliability and validity data are available on the instrument?

Split-half reliability coefficients, corrected by the Spearman-Brown Formula, ranged from .68 to .90 in the standardization sample. No validity data are reported. Locally, correlation coefficients ranging from .35 to .31 were found between the Boehm and the CAT Reading Total for limited English-speaking students (1st grade level).

Are there norm data available for interpreting the results?

Standardization sample consisted of low, middle, and high socio-economic level students from kindergarten, first, and second grades in sixteen cities around the country. Percentiles corresponding to various raw scores are reported for beginning and mid year testing in each of the SES levels by grade classifications.

80.71

BOEHM TEST OF BASIC CONCEPTS

Purpose

Results of the Boehm Test of Basic Concepts were used to answer the following decision and evaluation questions from the Title I Evaluation Design for 1980-81.

Decision Question D1: Should the Title I Reading Improvement Program be modified? If so, how?

Evaluation Question D1-1: Were the objectives of the Title I reading component met?

Evaluation Question D1-7: How many Title I students scored high enough to exit from the Title I program during 1979-1980?

Decision Question D2: Should Title I schoolwide projects be continued, expanded, or revised? If so, how?

Evaluation Question D2-1: Were the objectives of the schoolwide projects met?

Evaluation Question D2-2: Were the achievement gains made by low-achieving students (40th percentile or below) in the schoolwide projects equal to the gains made by low-achieving students in regular Title I schools?

Evaluation Question D2-3: Were the achievement gains made by high-achieving students (above 40th percentile) in the schoolwide projects equal to the gains made by high-achieving students in regular Title I schools?

Decision Question D3: Should the Rainbow Kit project be continued, modified, or discontinued?

Evaluation Question D3-1: Did the achievement gains of Rainbow Kit participants exceed those of non-participants in the control group?

Decision Question D4: Should the Title I Early Childhood Education Program be continued, modified, or discontinued? If so, how?

Evaluation Question D4-3: Did former Pre-K participants score higher than other students in their schools when entering kindergarten and first grade?

Decision Question D5: Should the Happy Talk Program be continued, modified, or discontinued?

Evaluation Question D5-3: Did Happy Talk participants outscore the other students in their schools when entering kindergarten?

The information gathered was used in partial fulfillment of Information Needs I2, I3, and I4 for the 1981-1982 Needs Assessment.

I2: How similar are the results when the schools are ranked for Title I eligibility in each way possible under Title I regulations?

I3: How many students in each school scored below selected percentile points on the Boehm, MRT, and ITBS?

I4: How many students would be eligible for Title I services for various combinations of criteria for campus and student eligibility?

Procedure

The Boehm Test of Basic Concepts was administered by the Systemwide Testing Program in all kindergarten classes in AISD during the fall of 1980. The testing occurred September 8-12, with makeups being given September 15-19. Classroom teachers administered the test to their own students. Booklets were then forwarded to ORE for scoring.

In the spring, kindergarten classes in Title I schools and a few others where requested were posttested on February 9-13, with makeups on February 16-20.

Detailed procedures are outlined in the Final Technical Report, Systemwide Evaluation, publication number 80.39.

In addition, students who entered Title I schools after the September testing and did not have a comparable score were given the Boehm to determine their Title I eligibility. The Boehm was also given to students whom teachers felt had received invalid test scores in September.

Because so many analyses were done using the Boehm data, procedures are described briefly along with the results related to each evaluation question.

Results

The Boehm results are presented by evaluation question or information need.

Evaluation Question D1-1: Were the objectives of the Title I reading component met?

The Texas Education Agency requires stratified achievement objectives. The kindergarten objective for the AISD Reading Improvement Program was based on the previous performance by Title I students. Only students tested in English were used to establish and measure the objective. Too few students were both pre- and posttested in Spanish to establish and measure an objective in that language. Figure B-1 shows the number and percentage of Title I students making gains in each interval specified in the objective. It is not clear to the writer exactly how stratified objectives are to be evaluated. It would appear that the program did not do quite as well as expected since the percentages in the bottom three ranges of gain are greater than expected while the percentages in the top two ranges are smaller than anticipated. An examination of the mean gain, however, shows that the program did about as well this year as last. The average gain for students tested in English in 1979-80 was 14.5 raw score points. The average gain this year was .6 points lower, 13.9 raw score points.*

Evaluation Question D1-7: Were the objectives of the schoolwide projects met?

Figures B-3 and B-4 provide the results for the students tested in English at Allison and Becker. The results were very similar for the two groups. The students in the two schools had the same pretest mean and were within .2 raw score points of each other at posttest. A comparison of the gains made by these students to those made by other Title I students follows.

Evaluation Question D2-2: Were the achievement gains made by low-achieving students (40th percentile or below) in the schoolwide projects equal to the gains made by low-achieving students in regular Title I schools?

Evaluation Question D2-3: Were the achievement gains made by high-achieving students (above the 40th percentile) in the schoolwide projects equal to the gains made by high-achieving students in regular Title I schools?

A number of analyses were done to provide information about these evaluation questions. Attachment B-1 describes the type of linear models used to make the comparisons between groups. The same models were used in each analysis reported below. In each case the pretest was the fall Boehm raw score, and the posttest was the spring Boehm score. Only the makeup of the groups differed from analysis to analysis.

*See addendum.

The first set of analyses compared low-achieving students (pretest ≤ 40th percentile) at Allison with similar students at Becker. The results in Figure B-5 show that the two groups did not differ significantly.

Figure B-6 reports the results when the high-achieving students (pretest > 40th percentile) at the same schools were compared. Again the groups were not found to differ significantly.

Then all kindergarten students at Allison who were tested in English were compared with their counterparts at Becker, and the results were the same. None of the F-tests were significant.

When the kindergarten students at the two schoolwide projects were not found to differ significantly, they were combined for comparisons with students from the other Title I schools. The comparisons were limited to students in schools that had been part of the Title I Program in previous years so that students of relatively similar socioeconomic backgrounds were used in the comparisons. The schools comprising the comparison group were the following: Brown, Blackshear, Campbell, Dawson, Govalle, Maplewood, Mathews, Metz, Norman, Oak Springs, Ortega, Ridgetop, Rosedale, Sanchez, Sims, and Zavala. First, low achievers in the two groups were compared. Then high achievers and all students were compared.

Figures B-8 through B-10 reveal that the two groups differed significantly in each set of analyses. An examination of expected values for the two groups when all students in each group were included in the analysis shows about a 3 point advantage on the posttest for schoolwide project students compared to students from regular Title I schools with equivalent pretest scores. At the pretest mean of schoolwide project participants, this gain represents a gain of about eight NCE's.

Copies of the computer printouts from which Figures B-5 through B-10 were taken can be found as Attachments B-2 through B-7.

Evaluation Question D3-1: Did the achievement gains of Rainbow Kit participants exceed those of nonparticipants in the control group?

The Rainbow Kits are collections of 36 reading-related activities for parents and children. The activities, which were developed on four levels--kindergarten, first grade, primary (grades 2 and 3) and intermediate (grades 4-6)--are packaged in envelopes and designed to be sent home with the Title I children on a weekly basis throughout the school year.

The Rainbow Kits were pilot tested in six Title I schools. Grade levels at each school were assigned to either participation or control status. All students in a participating grade received Rainbow Kits, Title I students at nonparticipating grades did not receive the lessons. At kindergarten three schools--Brown, Dawson, and Maplewood--received the kits. The nonparticipating schools were Ridgetop and Zilker. Harris, the sixth school, did not have kindergarten students. The linear models in Attachment B-1 were used to compare the partici-

pating Title I students with the controls. Nonparticipating siblings of participants were removed from all Rainbow Kit analyses so the presence of the kits in the home would not confound the results. About one-third of the parents responding to a Rainbow Kit Questionnaire (Appendix H) had reported other children using the Rainbow Kit their child received.

The results presented in Figures B-11 and B-12 would seem to imply that the Rainbow Kits retarded the learning of students with a pretest score below 20; however, only 15 students were included in the control group. Such an N is too small for meaningful analysis especially using models with as many as six predictors.

Evaluation Question D4-3: Did former pre-k participants score higher than other students in their schools when entering kindergarten and first grade?

To answer this question the Boehm scores of two groups of students were compared. One group was 1979-80 Title I pre-k students who entered kindergarten in September, 1980. The other group consisted of all the kindergarten students in the schools which had Title I pre-k classes in 1979-80 except for the former Title I pre-k students and the former Title I Migrant pre-k students who attended those schools. The two groups were compared on the Boehm subscales and total scores. Figure B-13 shows that the former pre-k students scored significantly higher than the others on total score and on all subscales except one, Miscellaneous. The difference between the groups on total score represents about a 15 percentile point difference in the middle SES norms. About half of the former pre-k students were not eligible for Title I instruction.

Evaluation Question D5-3: Did Happy Talk participants outscore the other students in their schools when entering kindergarten?

A different approach was taken in answering this evaluation question. Thirty-six Happy Talk participants from 1979-80 were found to have fall, 1980, Boehm scores. They attended 10 different elementary schools: Allison, Blackshear, Brooke, Brown, Govalle, Metz, Ortega, St. Elmo, Zavala, and Winn. An expected score was first determined by getting a weighted average of the mean Boehm raw scores at these 10 schools. The calculation of the mean for all ten schools was weighted by the number of former Happy Talk students attending the school. The weighted mean was 24.8. A t-test was then calculated to see if the mean of the former Happy Talk students, 22.6, differed significantly from this score. The t of 2.31 was significant at the .05 level, so it appears that the former Happy Talk students scored below the other kindergarten students in the schools they attended.

Addendum

An analysis reported in Appendix G of the Final Technical Report, Systemwide Testing Evaluation, publication number 80.39, shows that when only the nine schools that have been Title I schools for the last four years are included, the gain is the same (12.1 points) as in 1979-80.

Results		Expected	
Number	Percent	Percent	Gain of...
67	16.4	18	≥20 raw score points
138	33.8	37	14-19 raw score points
168	41.2	37	7-13 raw score points
30	7.4	7	1- 6 raw score points
5	1.2	1	≤0 raw score points

Pretest mean score = 21.5

Posttest mean score = 35.4 N = 408

Average gain = 13.9

Figure B-1. MEASUREMENT OF READING COMPONENT OBJECTIVE, 1980-81.

Spring Boehm Raw Score	1980		1981	
	Number	Percent	Number	Percent
≤34	234	38	161	39
>34	382	62	247	61

Figure B-2. NUMBER AND PERCENTAGE OF TITLE I KINDERGARTEN STUDENTS SCORING HIGH ENOUGH TO EXIT TITLE I STATUS.

Results		Expected	
Number	Percent	Percent	Gain of...
17	27.0	16	≥20 raw score points
22	34.9	37	14-19 raw score points
18	28.6	24	7-13 raw score points
6	9.5	15	1- 6 raw score points
0	0.0	0	≤0 raw score points

Pretest mean score = 24.5

Posttest mean score = 40.2 N = 63

Average gain = 15.7

Figure B-3. MEASUREMENT OF TITLE I SCHOOLWIDE PROJECT OBJECTIVES AT ALLISON.

Results		Expected	
Number	Percent	Percent	Gains of...
21	25.6	21	≥20 raw score points
26	31.7	42	14-19 raw score points
32	39.0	35	7-13 raw score points
3	3.7	12	1- 6 raw score points
0	0.0	2	≤0 raw score points

Pretest mean score = 24.5

Posttest mean score = 40.0 N = 82

Average gain = 15.5

Figure B-4. MEASUREMENT OF TITLE I SCHOOLWIDE PROJECT OBJECTIVES AT BECKER.

Models			RSQ				
Full		Restricted	Full	Restricted	df	F	p
1	vs	2	.3122	.3121	1,99	0.017	0.891
2	vs	3	.3121	.2939	1,100	2.635	0.104
3	vs	4	.2939	.2828	1,101	1.597	0.207
4	vs	5	.2828	.2799	1,103	0.417	0.527

Figure B-5. MODELS COMPARING LOW ACHIEVERS (<40th Percentile) AT ALLISON (N=46) AND BECKER (N=59) SCHOOLWIDE PROJECTS.

Models			RSQ				
Full		Restricted	Full	Restricted	df	F	p
1	vs	2	.2004	.2011	1,34	0.0	1.000
2	vs	3	.2011	.1971	1,35	0.177	0.680
3	vs	4	.1971	.1960	1,36	0.047	0.823
4	vs	5	.1960	.1381	1,37	2.666	0.107

Figure B-6. MODELS COMPARING HIGH ACHIEVERS (>40th Percentile) AT ALLISON (N=17) AND BECKER (N=23) SCHOOLWIDE PROJECTS.

Models			RSQ				
Full		Restricted	Full	Restricted	df	F	p
1	vs	2	.4732	.4726	1,139	0.162	0.690
2	vs	3	.4726	.4637	1,140	2.375	0.122
3	vs	4	.4637	.4513	1,141	3.240	0.070
4	vs	5	.4513	.4512	1,142	0.023	0.874

Figure B-7. MODELS COMPARING ALL STUDENTS AT ALLISON (N=63) AND BECKER (N=82) SCHOOLWIDE PROJECTS.

Models			RSQ				
Full		Restricted	Full	Restricted	df	F	p
1	vs	2	.3078	.3037	1, 594	3.506	0.058
2	vs	3	.3037	.3037	1, 595	0.0	1.000
3	vs	4	.3037	.3037	1, 596	0.0	1.000
4	vs	5	.3037	.2715	1, 597	27.757	<0.0001

Figure B-8. MODELS COMPARING LOW ACHIEVERS (≤40th Percentile) AT ALLISON AND BECKER (N=105) WITH LOW ACHIEVERS AT TRADITIONAL TITLE I SCHOOLS (N=495). See text for a list of schools.

Models			RSQ				
Full		Restricted	Full	Restricted	df	F	p
1	vs	2	.2485	.2485	1, 307	0.0	1.000
2	vs	3	.2485	.2490	1, 308	0.0	1.000
3	vs	4	.2490	.2494	1, 309	0.0	1.000
4	vs	5	.2494	.1966	1, 310	21.829	<0.0001

Figure B-9. MODELS COMPARING HIGH-ACHIEVING (>40th Percentile) SCHOOLWIDE PROJECT STUDENTS (N=40) WITH HIGH ACHIEVERS AT TRADITIONAL TITLE I SCHOOLS (N=273).

Models			RSQ				
Full		Restricted	Full	Restricted	df	F	p
1	vs	2	.5202	.5196	1, 907	1.081	0.299
2	vs	3	.5196	.5169	1, 908	5.182	0.022
3	vs	4	.5169	.5169	1, 909	0.0	1.000
4	vs	5	.5169	.4922	1, 911	46.619	<0.0001

Figure B-10. MODELS COMPARING ALL SCHOOLWIDE PROJECT STUDENTS (N=145) WITH ALL STUDENTS IN TRADITIONAL TITLE I SCHOOLS (N=768).

80.71

Models			RSQ				
Full		Restricted	Full	Restricted	df	F	p
1	vs	2	.4397	.4209	1,71	2.382	.123
2	vs	3	.4209	.3799	1,72	5.094	.025
3	vs	4	.3799	.3581	1,73	2.572	.109
4	vs	5	.3581	.3532	1,74	0.558	.464

Figure B-11. COMPARISON OF RAINBOW KIT PARTICIPANTS AND NONPARTICIPATING TITLE I STUDENTS. Nonparticipating siblings of Rainbow Kit recipients were excluded from the analysis.

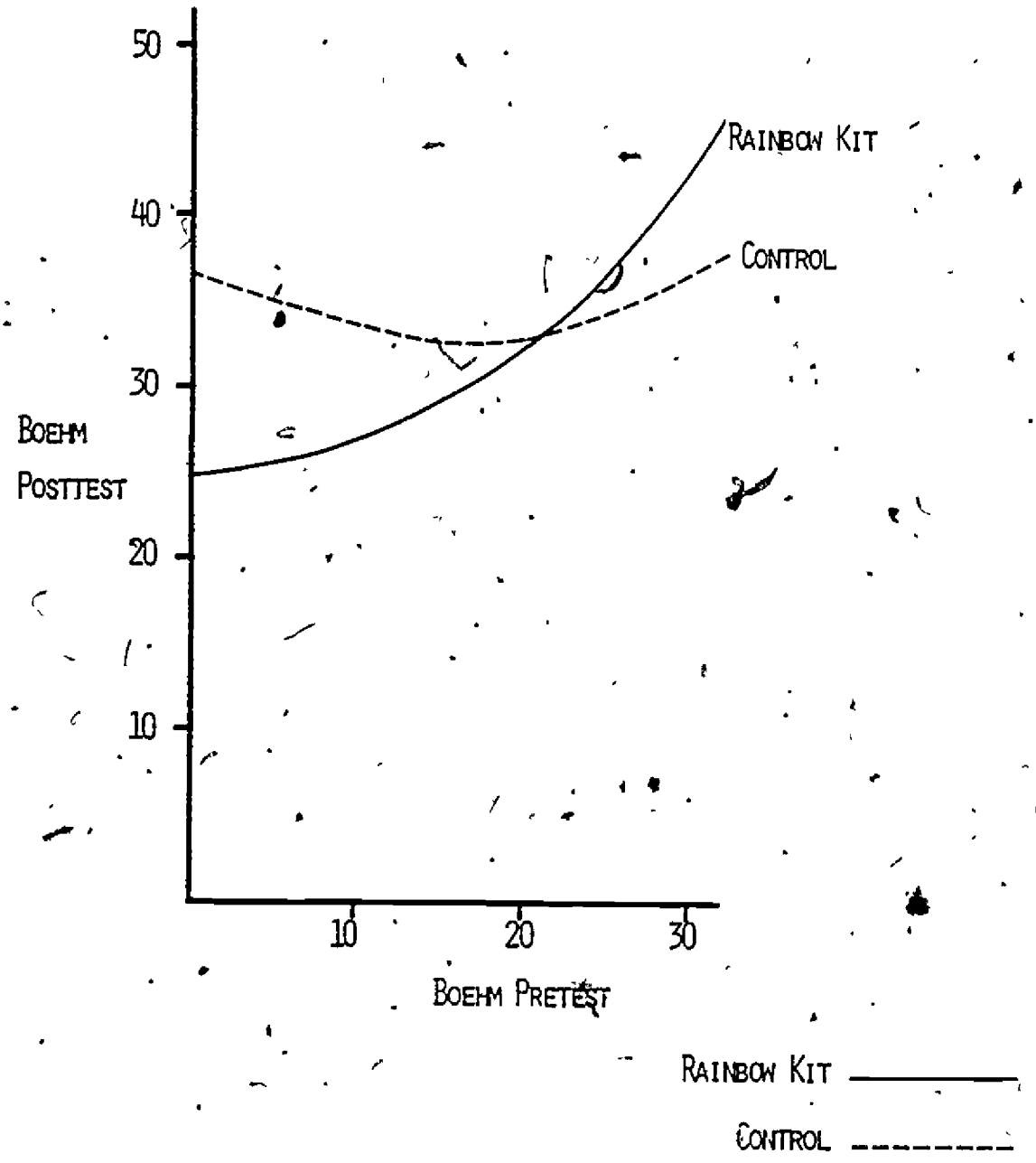


Figure B-12. COMPARISON OF RAINBOW KIT PARTICIPANTS AND CONTROL STUDENTS.

Variable	Title I Pre-k* N	Mean	No Pre-k* N	Mean	df	F	p
Space (23)**	86	15.86	211	13.72	1, 295	14.985	.0003
Quantity (18)	86	10.23	211	8.94	1, 295	11.506	.0012
Time (4)	86	2.23	211	1.73	1, 295	11.956	.0010
Misc. (5)	86	2.42	211	2.54	1, 295	2.536	.1083
Total (50)	86	30.74	211	26.53	1, 295	15.405	.0003

*See the text for the definitions of each group.
**Numbers in parentheses give the number of items included in the scale.

Figure B-13. COMPARISON OF FORMER TITLE I PRE-K STUDENTS AND NONPARTICIPANTS AT ENTRY INTO KINDERGARTEN.

PROTOTYPIC MODELS FOR COMPARING GROUP GAINS

Model 1: $Y = a_0U + a_1X^{(3)} + a_3X^{(4)} + a_4X^{(6)} + a_5X^{(7)} + a_6X^{(8)} + E$

Model 2: $Y = a_7U + a_8X^{(3)} + a_9X^{(4)} + a_{10}X^{(5)} + a_{11}X^{(8)} + E$

Model 3: $Y = a_{12}U + a_{13}X^{(3)} + a_{14}X^{(4)} + a_{15}X^{(8)} + E$

Model 4: $Y = a_{16}U + a_{17}X^{(2)} + a_{18}X^{(8)} + E$

Model 5: $Y = a_{19}U + a_{20}X^{(2)} + E$

Where,

Y = posttest

U = unit vector

$X^{(2)}$ = pretest

$X^{(3)}$ = pretest if a member of Group 1; 0, otherwise

$X^{(4)}$ = pretest if a member of Group 2; 0 otherwise

$X^{(5)} = X^{(2)}$ squared

$X^{(6)} = X^{(3)}$ squared

$X^{(7)} = X^{(4)}$ squared

$X^{(8)}$ = 1 if a member of Group 1; 0, otherwise

*** OUTPUT FROM PROGRAM REGRAN ***

ALLISON VS BECKER -- BOEHM 1980-1981 -- RAW SCORES <= 30

PARAMETERS
COL 1- 5 = 8
COL 6-10 = 105
COL 11-15 = 5
COL 16-20 = 4
COL 21-25 = 1

DATA FORMAT = (DUMMY)

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8
	37.9143	20.6381	9.0667	11.5714	459.9143	200.3810	259.5333	0.4381

SIGMAS	1	2	3	4	5	6	7	8
	6.8704	5.8295	10.8709	11.2087	228.7165	267.2546	291.3714	0.4962

R MATRIX	1	2	3	4	5	6	7	8
1	1.0000	0.5290	0.1340	0.1452	0.4951	0.1725	0.2304	0.0585
2	0.5290	1.0000	0.2093	0.3171	0.9842	0.3263	0.4733	0.0087
3	0.1340	0.2093	1.0000	-0.8610	0.1906	0.9731	-0.7429	0.9446
4	0.1452	0.3171	-0.8610	1.0000	0.3270	-0.7740	0.9667	-0.9116
5	0.4951	0.9842	0.1906	0.3270	1.0000	0.3177	0.4936	-0.0097
6	0.1725	0.3263	0.9731	-0.7740	0.3177	1.0000	-0.6678	0.8491
7	0.2304	0.4733	-0.7429	0.9667	0.4936	-0.6678	1.0000	-0.7865
8	0.0585	0.0087	0.9446	-0.9116	-0.0097	0.8491	-0.7865	1.0000

80.71

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B-17

Attachment B-2
(Page 1 of 3)

MODEL 1 M1 CRITERION = 1

PREDICTORS = 3= 4 6= 8

R = 0.5587 RSQ = 0.3122 450 ITERATIONS.

V	BETA	B
3	2.2334	1.4115
4	2.6655	1.6338
6	-0.9301	-0.0239
7	-1.0200	-0.0241
8	0.3663	5.0728
REG. CONST. =		15.0222

MODEL 2 M2 CRITERION = 1

PREDICTORS = 3= 5 8= 8

R = 0.5586 RSQ = 0.3121 179 ITERATIONS.

V	BETA	B
3	2.0232	1.2786
4	2.5320	1.5520
5	-0.7127	-0.0214
8	0.4486	6.2117
REG. CONST. =		15.4876

MODEL 3 M3 CRITERION = 1

PREDICTORS = 3= 4 8= 8

R = 0.5422 RSQ = 0.2939 57 ITERATIONS.

V	BETA	B
3	0.7580	0.4790
4	1.1628	0.7127
8	0.4025	5.5731
REG. CONST. =		22.8823

MODEL 4 M4 CRITERION = 1

PREDICTORS = 2= 2 8= 8

R = 0.5318 RSQ = 0.2828 2 ITERATIONS.

V	BETA	B
2	0.5286	0.6229
8	0.0539	0.7464
REG. CONST. =		24.7312

112

```
MODEL  5 M5  CRITERION =  1

PREDICTORS =  2= 2

R = 0.5290      RSQ = 0.2799          1 ITERATIONS.

  V .     BETA       B
  2  .  0.5290    0.6235
REG. CONST. =    25.0468


F-TEST  1   MODEL 1 VS MODEL 2                                          0930
RSQ FULL =     0.3122      MODEL  1
RSQ REDUCED =  0.3121      MODEL  2
DIFFERENCE =   0.0001
DFN =  1.      DFD =  99.      F-RATIO =    0.017    P = 0.8908


F-TEST  2   MODEL 2 VS MODEL 3                                          0940
RSQ FULL =     0.3121      MODEL  2
RSQ REDUCED =  0.2939      MODEL  3
DIFFERENCE =   0.0181
DFN =  1.      DFD =  100.     F-RATIO =    2.635    P = 0.1037


F-TEST  3   MODEL 3 VS MODEL 4                                          0950
RSQ FULL =     0.2939      MODEL  3
RSQ REDUCED =  0.2828      MODEL  4
DIFFERENCE =   0.0112
DFN =  1.      DFD =  101.     F-RATIO =    1.597    P = 0.2065


F-TEST  4   MODEL 4 VS MODEL 5                                          0960
RSQ FULL =     0.2828      MODEL  4
RSQ REDUCED =  0.2799      MODEL  5
DIFFERENCE =   0.0029
DFN =  1.      DFD =  102.     F-RATIO =    0.413    P = 0.5289
```

*** OUTPUT FROM PROGRAM REGRAN ***

ALLISON VS BECKER — BOEHM 1980-1981 — RAW SCORES > 30 0850

PARAMETERS
COL 1- 5 = 8
COL 6-10 = 40
COL 11-15 = 5
COL 16-20 = 4
COL 21-25 = 1

DATA FORMAT = (DUMMY) 0870

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8
	45.8250	34.7500	14.8000	19.9500	1217.7500	519.5500	698.2000	0.4250

SIGMAS	1	2	3	4	5	6	7	8
	3.0405	3.1918	17.3352	17.3262	228.9991	621.7881	625.5556	0.4943

R MATRIX	1	2	3	4	5	6	7	8
1	1.0000	0.3716	-0.2065	0.2751	0.3772	-0.1741	0.3112	-0.2333
2	0.3716	1.0000	0.0949	0.0893	0.9991	0.1695	0.1972	0.0198
3	-0.2065	0.0949	1.0000	-0.9830	0.0927	-0.9928	-0.9529	0.9931
4	0.2751	0.0893	-0.9830	1.0000	0.0913	-0.9621	0.9897	-0.9899
5	0.3772	0.9991	0.0927	0.0913	1.0000	0.1676	0.1994	0.0177
6	-0.1741	0.1695	0.9928	-0.9621	0.1676	1.0000	-0.9326	0.9719
7	0.3112	0.1972	-0.9529	0.9897	0.1994	-0.9326	1.0000	-0.9596
8	-0.2333	0.0198	0.9931	-0.9899	0.0177	0.9719	-0.9596	1.0000

80.71

8-20

Attachment B-3
(Page 1 of 3)

MODEL 1 M1 CRITERION = 1

PREDICTORS = 3= 4 6= 8

R = 0.4476 RSQ = 0.2004 12 ITERATIONS.

V	BETA	B
3	0.0	0.0
4	0.0	0.0
6	0.9040	0.0044
7	1.1341	0.0055
8	-0.0209	-0.1288

REG. CONST. = 39.7344

MODEL 2 M2 CRITERION = 1

PREDICTORS = 3= 5 8= 8

R = 0.4485 RSQ = 0.2011 2 ITERATIONS.

V	BETA	B
3	-0.2436	-0.0427
4	0.0	0.0
5	0.3998	0.0053
8	0.0	0.0

REG. CONST. = 39.9934

MODEL 3 M3 CRITERION = 1

PREDICTORS = 3= 4 8= 8

R = 0.4439 RSQ = 0.1971 2 ITERATIONS.

V	BETA	B
3	1.9000	0.3332
4	2.1429	0.3760
8	0.0	0.0

REG. CONST. = 33.3909

MODEL 4 M4 CRITERION = 1

PREDICTORS = 2= 2 8= 8

R = 0.4427 RSQ = 0.1960 2 ITERATIONS.

V	BETA	B
2	0.3764	0.3585
8	-0.2407	-1.4806

REG. CONST. = 33.9954

```
MODEL  5 M5  CRITERION =  1

PREDICTORS =  2- 2

R = 0.3716      RSQ = 0.1381          1 ITERATIONS.

  V       BETA        B
  2     0.3716     0.3540
REG. CONST. =    33.5239


F-TEST  1   MODEL 1 VS MODEL 2                                          0930
RSQ FULL =     0.2004      MODEL  1
RSQ REDUCED =  0.2011      MODEL  2
DIFFERENCE = -0.0007
DFN =  1.      DFD =   34.      F-RATIO =   0.0      P = 1.0000


F-TEST  2   MODEL 2 VS MODEL 3                                          0940
RSQ FULL =     0.2011      MODEL  2
RSQ REDUCED =  0.1971      MODEL  3
DIFFERENCE =   0.0040
DFN =  1.      DFD =   35.      F-RATIO =   0.177    P = 0.6800


F-TEST  3   MODEL 3 VS MODEL 4                                          0950
RSQ FULL =     0.1971      MODEL  3
RSQ REDUCED =  0.1960      MODEL  4
DIFFERENCE =   0.0011
DFN =  1.      DFD =   36.      F-RATIO =   0.047    P = 0.8232


F-TEST  4   MODEL 4 VS MODEL 5                                          0960
RSQ FULL =     0.1960      MODEL  4
RSQ REDUCED =  0.1381      MODEL  5
DIFFERENCE =   0.0579
DFN =  1.      DFD =   37.      F-RATIO =   2.666    P = 0.1073
```

*** OUTPUT FROM PROGRAM REGRAN ***

ALLISON VS BECKER -- BOEHM 1980-1981 -- ALL STUDENTS

80.71

PARAMETERS
COL 1-5 = 8
COL 6-10 = 145
COL 11-15 = 5
COL 16-20 = 4
COL 21-25 = 1

DATA FORMAT = (DUMMY)

0870

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8
	40.0966	24.5310	10.6483	13.8828	668.9724	288.4276	380.5448	0.4345

SIGMAS	1	2	3	4	5	6	7	8
	7.0166	8.1976	13.2303	13.7045	408.7460	422.7588	455.9249	0.4957

R MATRIX	1	2	3	4	5	6	7	8
1	1.0000	0.6718	0.1433	0.2635	0.6393	0.2167	0.3721	0.0078
2	0.6718	1.0000	0.2509	0.3559	0.9813	0.3926	0.5157	-0.0025
3	0.1433	0.2509	1.0000	-0.8153	0.2427	0.9592	-0.6718	0.9182
4	0.2635	0.3559	-0.8153	1.0000	0.3526	-0.6911	0.9570	-0.8879
5	0.6393	0.9813	0.2427	0.3526	1.0000	0.3991	0.5265	-0.0110
6	0.2167	0.3926	0.9592	-0.6911	0.3991	1.0000	-0.5695	0.7784
7	0.3721	0.5157	-0.6718	0.9570	0.5265	-0.5695	1.0000	-0.7316
8	0.0078	-0.0025	0.9182	-0.8879	-0.0110	0.7784	-0.7316	1.0000

Attachment B-4
(Page 1 of 3)

MODEL 1 M1 CRITERION = 1

PREDICTORS = 3- 4 6- 8

R = 0.6879 RSQ = 0.4732 352 ITERATIONS.

V	BETA	B
3	1.6840	0.8931
4	2.1591	1.1054
6	-0.5112	-0.0085
7	-0.6145	-0.0095
8	0.3269	4.6276
REG. CONST. =		19.2759

MODEL 2 M2 CRITERION = 1

PREDICTORS = 3- 5 8- 8

R = 0.6875 RSQ = 0.4726 129 ITERATIONS.

V	BETA	B
3	1.5777	0.8367
4	2.0217	1.0351
5	-0.4519	-0.0078
8	0.3493	4.9439
REG. CONST. =		19.8579

MODEL 3 M3 CRITERION = 1

PREDICTORS = 3- 4 8- 8

R = 0.6809 RSQ = 0.4637 44 ITERATIONS.

V	BETA	B
3	0.8854	0.4696
4	1.2688	0.6496
8	0.3194	4.5068
REG. CONST. =		24.1196

MODEL 4 M4 CRITERION = 1

PREDICTORS = 2- 2 8- 8

R = 0.6718 RSQ = 0.4513 2 ITERATIONS.

129

V	BETA	B
2	0.6718	0.5750
8	0.0094	0.1334
REG. CONST. =		25.9335

MODEL 5 MS CRITERION = 1

PREDICTORS = 2- 2

R = 0.6718 RSQ = 0.4512 1 ITERATIONS

V	BETA	B
2	0.6718	0.5750
REG. CONST. =		25.9920

F-TEST 1 MODEL 1 VS MODEL 2 0930
RSQ FULL = 0.4732 MODEL 1
RSQ REDUCED = 0.4726 MODEL 2
DIFFERENCE = 0.0006
DFN = 1. DFD = 139. F-RATIO = 0.162 P = 0.6903

F-TEST 2 MODEL 2 VS MODEL 3 0940
RSQ FULL = 0.4726 MODEL 2
RSQ REDUCED = 0.4637 MODEL 3
DIFFERENCE = 0.0089
DFN = 1. DFD = 140. F-RATIO = 2.375 P = 0.1215

F-TEST 3 MODEL 3 VS MODEL 4 0950
RSQ FULL = 0.4637 MODEL 3
RSQ REDUCED = 0.4513 MODEL 4
DIFFERENCE = 0.0123
DFN = 1. DFD = 141. F-RATIO = 3.240 P = 0.0703

F-TEST 4 MODEL 4 VS MODEL 5 0960
RSQ FULL = 0.4513 MODEL 4
RSQ REDUCED = 0.4512 MODEL 5
DIFFERENCE = 0.0001
DFN = 1. DFD = 142. F-RATIO = 0.023 P = 0.8743

*** OUTPUT FROM PROGRAM REGRAN ***

TITLE I REGULAR VS SCHOOLWIDE PROJECTS -- BOEHM 1980-1981 -- RAW SCORES <= 30

80.71

PARAMETERS
COL 1- 5 = 8
COL 6-10 = 600
COL 11-15 = 5
COL 16-20 = 4
COL 21-25 = 9

DATA FORMAT = (DUMMY)

0540

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8
	36.0450	21.7600	3.6117	18.1483	505.6933	80.4850	425.2083	0.1750

SIGMAS	1	2	3	4	5	6	7	8
	6.5432	5.6741	8.2122	9.7901	230.5671	199.2306	286.2065	0.3800

R MATRIX	1	2	3	4	5	6	7	8
1	1.0000	0.5210	0.1946	0.1387	0.5105	0.2199	0.2582	0.1316
2	0.5210	1.0000	0.0407	0.5455	0.9838	0.1233	0.7067	-0.0911
3	0.1946	0.0407	1.0000	-0.8153	0.0340	0.9779	-0.6534	0.9549
4	0.1387	-0.5455	-0.8153	1.0000	0.5417	-0.7489	0.9577	-0.8538
5	0.5105	0.9838	0.0340	0.5417	1.0000	0.1191	0.7227	-0.0914
6	0.2199	0.1233	0.9779	-0.7489	0.1191	1.0000	-0.6002	0.8771
7	0.2582	0.7067	-0.6534	0.9577	0.7227	-0.6002	1.0000	-0.6842
8	0.1316	-0.0911	0.9549	-0.8538	-0.0914	0.8771	-0.6842	1.0000

MODEL 1 M1 CRITERION = 1

PREDICTORS = 3= 4 6= 8

R = 0.5548 RSQ = 0.3078 245 ITERATIONS.

V	BETA	B
3	1.6863	1.3436
4	0.6318	0.4223
6	-0.5724	-0.0188
7	0.2162	0.0049
8	-0.2892	-4.9806
REG. CONST. =		23.8114

MODEL 2 M2 CRITERION = 1

PREDICTORS = 3= 5 8= 8

R = 0.5511 RSQ = 0.3037 134 ITERATIONS.

V	BETA	B
3	0.7810	0.6222
4	0.9748	0.6515
5	-0.0240	-0.0007
8	0.2186	3.7651
REG. CONST. =		21.6599

MODEL 3 M3 CRITERION = 1

PREDICTORS = 3= 4 8= 8

R = 0.5511 RSQ = 0.3037 38 ITERATIONS.

V	BETA	B
3	0.8146	0.6490
4	0.9184	0.6138
8	0.1348	2.3219
REG. CONST. =		22.1555

MODEL 4 M4 CRITERION = 1

PREDICTORS = 2= 2 8= 8

R = 0.5512 RSQ = 0.3038 2 ITERATIONS.

V	BETA	B
2	0.5375	0.6198
8	0.1805	3.1086
REG. CONST. =		22.0144

```
MODEL  5 .15  CRITERION =  1

PREDICTORS =  2= 2

R = 0.5210     RSQ = 0.2715          1 ITERATIONS.

  V       BETA
  2     0.5210     0.6008
REG. CONST. =    22.9710


F-TEST  1   MODEL 1 VS MODEL 2                                        0600
RSQ FULL =    0.3078      MODEL  1
RSQ REDUCED = 0.3037      MODEL  2
DIFFERENCE =  0.0041
DFN =  1.     DFD =  594.     F-RATIO =   3.506    P = 0.0582


F-TEST  2   MODEL 2 VS MODEL 3                                        0610
RSQ FULL =    0.3037      MODEL  2
RSQ REDUCED = 0.3037      MODEL  3
DIFFERENCE =  0.0000
DFN =  1.     DFD =  595.     F-RATIO =   0.042    P = 0.8326


F-TEST  3   MODEL 3 VS MODEL 4                                        0620
RSQ FULL =    0.3037      MODEL  3
RSQ REDUCED = 0.3038      MODEL  4
DIFFERENCE = -0.0001
DFN =  1.     DFD =  596.     F-RATIO =   0.0      P = 1.0000


F-TEST  4   MODEL 4 VS MODEL 5                                        0630
RSQ FULL =    0.3038      MODEL  4
RSQ REDUCED = 0.2715      MODEL  5
DIFFERENCE =  0.0323
DFN =  1.     DFD =  597.     F-RATIO =  27.712    P = 0.0000
```

*** OUTPUT FROM PROGRAM REGRAN ***

TITLE I REGULAR VS SCHOOLWIDE PROJECTS -- BOEHM 1980-1981 -- RAW SCORES > 30

80.71

PARAMETERS
COL 1- 5 = 8
COL 6-10 = 313
COL 11-15 = 5
COL 16-20 = 4
COL 21-25 = 1

DATA FORMAT = (DUMMY)

0540

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8
	44.3259	36.5911	4.4409	32.1502	1356.6166	155.6230	1200.9936	0.1278

SIGMAS	1	2	3	4	5	6	7	8
	3.7650	4.2085	11.6577	12.9368	319.1276	414.7205	551.0479	0.3339

R MATRIX	1	2	3	4	5	6	7	8
1	1.0000	0.4433	0.1622	-0.0019	0.4426	0.1709	0.1277	0.1524
2	0.4433	1.0000	-0.1401	0.4516	0.9980	-0.1107	0.6613	-0.1675
3	0.1622	-0.1401	1.0000	-0.9467	-0.1407	0.9949	-0.8303	0.9952
4	-0.0019	0.4516	-0.9467	1.0000	0.4514	-0.9326	0.9633	-0.9513
5	0.4426	0.9980	-0.1407	0.4514	1.0000	-0.1127	0.6639	-0.1666
6	0.1709	-0.1107	0.9949	-0.9326	-0.1127	1.0000	-0.8178	0.9803
7	0.1277	0.6613	-0.8303	0.9633	0.6639	-0.8178	1.0000	-0.8343
8	0.1524	-0.1675	0.9952	-0.9513	-0.1666	0.9803	-0.8343	1.0000

B-29

Attachment B-6
(Page 1 of 3)

MODEL 1, M1 CRITERION = 1

PREDICTORS = 3= 4 6= 8

R = 0.4985 RSQ = 0.2485 67 ITERATIONS.

V	BETA	B
3	0.0	0.0
4	0.0	0.0
6	0.6267	0.0057
7	0.8311	0.0057
8	0.2313	2.6087

REG. CONST. = 36.2877

MODEL 2 M2 CRITERION = 1

PREDICTORS = 3= 5 8= 8

R = 0.4985 RSQ = 0.2485 2 ITERATIONS.

V	BETA	B
3	0.0	0.0
4	0.0	0.0
5	0.4814	0.0057
8	0.2326	2.6229

REG. CONST. = 36.2865

MODEL 3 M3 CRITERION = 1

PREDICTORS = 3= 4 8= 8

R = 0.4990 RSQ = 0.2490 78 ITERATIONS.

V	BETA	B
3	1.4086	-0.4549
4	1.4778	0.4301
8	0.1534	1.7302

REG. CONST. = 28.2570

MODEL 4 M4 CRITERION = 1

PREDICTORS = 2= 2 8= 8

R = 0.4994 RSQ = 0.2494 2 ITERATIONS.

V	BETA	B
2	0.4824	0.4316
8	0.2332	2.6297

REG. CONST. = 28.1980

MODEL 5 MS CRITERION = 1

PREDICTORS = 2= 2

R = 0.4433 RSQ = 0.1966 1 ITERATIO

V	BETA	B
2	0.4433	0.3966
REG. CONST. =		29.8132

F-TEST 1 MODEL 1 VS MODEL 2
RSQ FULL = 0.2485 MODEL 1
RSQ REDUCED = 0.2485 MODEL 2
DIFFERENCE = -0.0000
DFN = 1. DFD = 307. F-RATIO = 0.0

F-TEST 2 MODEL 2 VS MODEL 3
RSQ FULL = 0.2485 MODEL 2
RSQ REDUCED = 0.2490 MODEL 3
DIFFERENCE = -0.0005
DFN = 1. DFD = 308. F-RATIO = 0.

F-TEST 3 MODEL 3 VS MODEL 4
RSQ FULL = 0.2490 MODEL 3
RSQ REDUCED = 0.2494 MODEL 4
DIFFERENCE = -0.0004
DFN = 1. DFD = 309. F-RATIO = 0.

F-TEST 4 MODEL 4 VS MODEL 5
RSQ FULL = 0.2494 MODEL 4
RSQ REDUCED = 0.1966 MODEL 5
DIFFERENCE = 0.0529
DFN = 1. DFD = 310. F-RATIO = 21

*** OUTPUT FROM PROGRAM REGRAN ***

TITLE I REGULAR VS SCHOOLWIDE PROJECTS -- BOEHM 1980-1981 -- ALL STUDENTS

80.71

PARAMETERS
COL 1- 5 = 8
COL 6-10 = 913
COL 11-15 = 5
COL 16-20 = 4
COL 21-25 = 1

DATA FORMAT = (DUMMY)

0540

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8
	38.8839	26.8445	3.8959	22.9485	797.4118	106.2442	691.1676	0.1588

SIGMAS	1	2	3	4	5	6	7	8
	6.9602	8.7628	9.5428	12.8270	482.6808	293.8039	541.7796	0.3655

R MATRIX	1	2	3	4	5	6	7	8
1	1.0000	0.7016	0.1635	0.3576	0.6775	0.2054	0.4922	0.0757
2	0.7016	1.0000	0.0198	0.6684	0.9808	0.1074	0.8156	-0.1147
3	0.1635	0.0198	1.0000	-0.7304	0.0047	0.9682	-0.5208	0.9396
4	0.3576	0.6684	-0.7304	1.0000	0.6665	-0.6470	0.9447	-0.7774
5	0.6775	0.9808	0.0047	0.6665	1.0000	0.0909	0.8416	-0.1156
6	0.2054	0.1074	0.9682	-0.6470	0.0909	1.0000	-0.4613	0.8322
7	0.4922	0.8156	-0.5208	0.9447	0.8416	-0.4613	1.0000	-0.5543
8	0.0757	-0.1147	0.9396	-0.7774	-0.1156	0.8322	-0.5543	1.0000

B-32

Attachment B-7
(Page 1 of 3)

MODEL 1 M1 CRITERION = 1

PREDICTORS = 3- 4 6- 8

R = 0.7212 RSQ = 0.5202 117 ITERATIONS.

V	BETA	B'
3	1.4636	1.0675
4	1.2757	0.6922.
6	-0.4224	-0.0100
7	-0.1721	-0.0022
8	-0.0521	-0.9923
REG. CONST. =		21.5884

MODEL 2 42 CRITERION = 1

PREDICTORS = 3- 5 8- 8

R = 0.7208 RSQ = 0.5196 56 ITERATIONS.

V	BETA	B
3	1.0813	0.7886
4	1.4382	0.7804
5	-0.2695	-0.0039
8	0.1452	2.7654
REG. CONST. =		20.5818

MODEL 3 43 CRITERION = 1

PREDICTORS = 3- 4 8- 8

R = 0.7180 RSQ = 0.5169 32 ITERATIONS.

V	BETA	B
3	0.8127	0.5927
4	1.0475	0.5684
8	0.1234	2.3503
REG. CONST. =		23.1575

MODEL 4 44 CRITERION = 1

PREDICTORS = 2- 2 8- 8

R = 0.7190 RSQ = 0.5169 2 ITERATIONS.

V	BETA	B'
2	0.7197	0.5717
8	0.1583	3.0139
REG. CONST. =		23.0587

MODEL 5 M5 CRITERION = 1

PREDICTORS = 2- 2

R = 0.7016 RSQ = 0.4922 1 ITERATIONS.

V	BETA	B
2	0.7016	0.5573

REG. CONST. = 23.9244

F-TEST 1 MODEL 1 VS MODEL 2
RSQ FULL = 0.5202 MODEL 1
RSQ REDUCED = 0.5196 MODEL 2
DIFFERENCE = 0.0006
DFN = 1. DFD = 907. F-RATIO = 1.081 P = 0.2990

F-TEST 2 MODEL 2 VS MODEL 3
RSQ FULL = 0.5196 MODEL 2
RSQ REDUCED = 0.5169 MODEL 3
DIFFERENCE = 0.0027
DFN = 1. DFD = 908. F-RATIO = 5.163 P = 0.0217

F-TEST 3 MODEL 3 VS MODEL 4
RSQ FULL = 0.5169 MODEL 3
RSQ REDUCED = 0.5169 MODEL 4
DIFFERENCE = -0.0001
DFN = 1. DFD = 909. F-RATIO = 0.0 P = 1.0000

F-TEST 4 MODEL 4 VS MODEL 5
RSQ FULL = 0.5169 MODEL 4
RSQ REDUCED = 0.4922 MODEL 5
DIFFERENCE = 0.0247
DFN = 1. DFD = 910. F-RATIO = 46.567 P = 0.0000

*** OUTPUT FROM PROGRAM REGRAN ***

ANALYSIS 4 -- RAINBOW KIT -- KINDERGARTEN

PARAMETERS
COL 1- 5 = 8
COL 6-10 = 77
COL 11-15 = 5
COL 16-20 = 4
COL 21-25 = 1

DATA FORMAT = (DUMMY)

0850

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8
	34.9610	22.6753	18.4675	4.2078	538.3636	444.5455	93.8182	0.8052

SIGMAS	1	2	3	4	5	6	7	8
	5.2778	4.9187	10.1733	8.7243	196.1068	283.2389	204.0746	0.3961

R MATRIX	1	2	3	4	5	6	7	8
1	1.0000	0.5943	0.3883	-0.1177	0.6228	0.4993	-0.0945	0.1331
2	0.5943	1.0000	0.5154	-0.0372	0.9672	0.6535	0.0224	0.1075
3	0.3883	0.5154	1.0000	-0.8755	0.5255	0.9651	-0.8345	0.8929
4	-0.1177	-0.0372	-0.8755	1.0000	-0.0675	-0.7570	0.9858	-0.9806
5	0.6228	0.9672	0.5255	-0.0675	1.0000	0.6935	-0.0015	0.1424
6	0.4993	0.6535	0.9651	-0.7570	0.6935	1.0000	-0.7215	0.7720
7	-0.0945	0.0224	-0.8345	0.9858	-0.0015	-0.7215	1.0000	-0.9346
8	0.1331	0.1075	0.8929	-0.9806	0.1424	0.7720	-0.9346	1.0000

80.71

B-35

Attachment B-8
(Page 1 of 3)

MODEL 1 M1 CRITERION = 1

PREDICTORS = 3= 4 6= 8

R = 0.6631 RSQ = 0.4397 946 ITERATIONS.

V	BETA	B
3	-0.1877	-0.0974
4	-6.5505	-3.9628
6	1.1147	0.0208
7	3.8220	0.0988
8	-3.4109	-45.4537
REG. CONST. =		71.5251

MODEL 2 M2 CRITERION = 1

PREDICTORS = 3= 5 8= 8

R = 0.6488 RSQ = 0.4209 29 ITERATIONS.

V	BETA	B
3	-0.1186	-0.0615
4	-1.0602	-0.6414
5	0.7437	0.0200
8	-0.9096	-12.1213
REG. CONST. =		37.7803

MODEL 3 M3 CRITERION = 1

PREDICTORS = 3= 4 8= 8

R = 0.6164 RSQ = 0.3799 72 ITERATIONS.

V	BETA	B
3	1.3321	0.6911
4	0.2519	0.1524
8	-0.8094	-10.7858
REG. CONST. =		30.2419

MODEL 4 M4 CRITERION = 1

PREDICTORS = 2= 2 8= 8

R = 0.5984 RSQ = 0.3581 2 ITERATIONS.

V	BETA	B
2	0.5868	0.6297
8	0.0700	0.9322
REG. CONST. =		19.9326

```
MODEL  5 M5  CRITERION =  1

PREDICTORS =  2= 2

R = 0.5943     RSQ = 0.3532          1= ITERATICNS.

  V       BETA        B
  2     0.5943     0.6377
REG= CONST. =    20.5002

F=TEST  1   MODEL 1 VS MODEL 2                                          0910
RSQ FULL =     0.439      MODEL  1
RSQ REDUCED = 0.4209      MODEL  2
DIFFERENCE =  0.0188
DFN =  1.      DFD =    71.      F=RATIO =    2.382    P = 0.1233

F=TEST  2   MODEL 2 VS MODEL 3                                          0920
RSQ FULL =     0.4209     MODEL  2
RSQ REDUCED = 0.3799      MODEL  3
DIFFERENCE =  0.0410
DFN =  1.      DFD =    72.      F=RATIO =    5.094    P = 0.0254

F=TEST  3   MODEL 3 VS MODEL 4                                          0930
RSQ FULL =     0.3799     MODEL  3
RSQ REDUCED = 0.3581      MODEL  4
DIFFERENCE =  0.0218
DFN =  1.      DFD =    73.      F=RATIO =    2.572    P = 0.1091

F=TEST  4   MODEL 4 VS MODEL 5                                          0940
RSQ FULL =     0.3581     MODEL  4
RSQ REDUCED = 0.3532      MODEL  5
DIFFERENCE =  0.0048
DFN =  1.      DFD =    74.      F=RATIO =    0.558    P = 0.4642
```

ESEA Title I

Appendix C

METROPOLITAN READINESS TESTS

Instrument Description. Metropolitan Readiness Tests (MRT)

Brief description of the instrument:

Eight tests that measure the skills needed in beginning reading and mathematics. These tests can be grouped into the following skills areas auditory, visual, language, and quantitative. The battery composite contains a total of 97 items.

To whom was the instrument administered?

All first-grade students.

How many times was the instrument administered?

Once, to all first-grade students.

When was the instrument administered?

September 8 - 12, 1980. Make-up tests were administered the following week.

Where was the instrument administered?

In the classroom.

Who administered the instrument?

The classroom teacher.

What training did the administrators have?

Written instructions from ORE were provided to the counselor and principal. Any teacher inservice training that occurred was the responsibility of the counselor or principal on each campus.

Was the instrument administered under standardized conditions?

Standardized instructions were distributed. Individual variations in administration procedures may have occurred.

Were there problems with the instrument or the administration that might affect the validity of the data?

No known problems.

Who developed the instrument?

The 1933 version was developed by Dr. Gertrude H. Hildreth; the 1976 version was written by Joanna P. Nurss and Mary E. McGauvran.

What reliability and validity data are available on the instrument?

Reliability and validity data are available in the Teacher's Manual, Part II on pp. 24-25. The reliability of the Form P subtests, as summarized by Kuder-Richardson Formula 20 coefficients and split-half correlations, range from .72 to .95.

Are there norm data available for interpreting the results?

The standardizing sample of 18,002 first graders was chosen to represent a variety of geographic regions, community sizes, and socio-economic levels, from 17 school districts. The norming study, completed in fall, 1974, was fairly representative.

80.71

METROPOLITAN READINESS TESTS

Purpose

Results of the Metropolitan Readiness Tests (MRT) were used to answer the following decision and evaluation questions from the Title I Evaluation Design for 1980-81.

Decision Question D1: Should the Title I Reading Improvement Program be modified? If so, how?

Evaluation Question D1-10: Did 1980 At-Home Summer Program participants show larger achievement gains from April, 1980, to April, 1981, or from October, 1980, to April, 1981, than the matched comparison groups?

Decision Question D2: Should Title I schoolwide projects be continued, expanded, or revised? If so, how?

Evaluation Question D2-2: Were the achievement gains made by low-achieving students (40th percentile or below) in the schoolwide projects equal to the gains made by low-achieving students in regular Title I schools?

Evaluation Question D2-3: Were the achievement gains made by high-achieving students (above 40th percentile) in the schoolwide projects equal to the gains made by high-achieving students in regular Title I schools?

Decision Question D4: Should the Title I Early Childhood Education Program be continued, modified, or discontinued? If so, how?

Evaluation Question D4-3: Did former pre-k participants score higher than other students in their schools when entering kindergarten and first grade?

The information gathered was used in partial fulfillment of Information Needs I2, I3, and I4 for the 1981-1982 Needs Assessment.

I2: How similar are the results when the schools are ranked for Title I eligibility in each way possible under the Title I regulations?

I3: How many students in each school scored below selected percentile points on the Boehm, MRT, and ITBS?

I4: How many students would be eligible for Title I services for various combinations of criteria for campus and student eligibility?

Procedure

The Metropolitan Readiness Test was administered by all AISD first-grade teachers to their classes on September 8-12. Make-up tests were given the following week. Teachers scored the MRT and forwarded the results to ORE. The Final Technical Report, Systemwide Evaluation, publication number 80.39, contains the details of the scoring and processing of the MRT.

Results

All evaluation findings for Evaluation Questions D1-10, D2-2, and D2-3 are reported in other appendices of this report. Information Needs I2, I3, and I4 are reported in the Needs Assessment, publication number 80.87.

Evaluation Question D4-3: Did former pre-k participants score higher than other students in their schools when entering kindergarten and first grade?

The answer to the first part of this question was presented in Appendix B, the Boehm appendix. To provide information about the second part of this question, the MRT scores of 68 students who had been in the pre-k program in 1978-79 were identified. These scores were compared to those of 168 first graders who attended kindergarten in the same schools in which the former early childhood students attended pre-k. These students were used because they should provide a group similar in socio-economic status to the former pre-k students. The pre-reading composite raw scores of these two groups were compared using Program ANOVAR of the SPSTAT package. The results presented in Figure C-1 show the two groups did not differ on their MRT scores when entering first grade.

The 1980-81 evaluation of the Title I Program compared the entering kindergarten scores of these same two groups. The former pre-k students were found to enter kindergarten with substantially higher test scores.

Figure C-2 compares the scores of the two groups at kindergarten and first grade. A great deal of caution must be used in interpreting the graph in Figure C-2 because of the difference in the tests used to get the scores. The Boehm norms are much older than those of the MRT, and the two tests do not necessarily measure the same dimensions. The value of the figure is that it graphically represents the closing of the gap between the two group means during the kindergarten year. The graph suggests that the closing of the gap is made partly at the expense of the former pre-k students; i.e., the kindergarten teachers do not respond to the initial advantage of the pre-k students in ways that maintain their relatively higher achievement level throughout the year. Whether this suggestion is correct is a question worthy of investigation in subsequent evaluations.

Group	N	Mean	df	F	p
Former Pre-k	68	41.69	1, 205	0.399	0.5353
Comparison Group	139	40.45			

Figure C-1. COMPARISON OF SEPTEMBER, 1981, MRT PRE-READING COMPOSITE SCORES OF FORMER TITLE I PRE-K STUDENTS AND A COMPARISON GROUP.

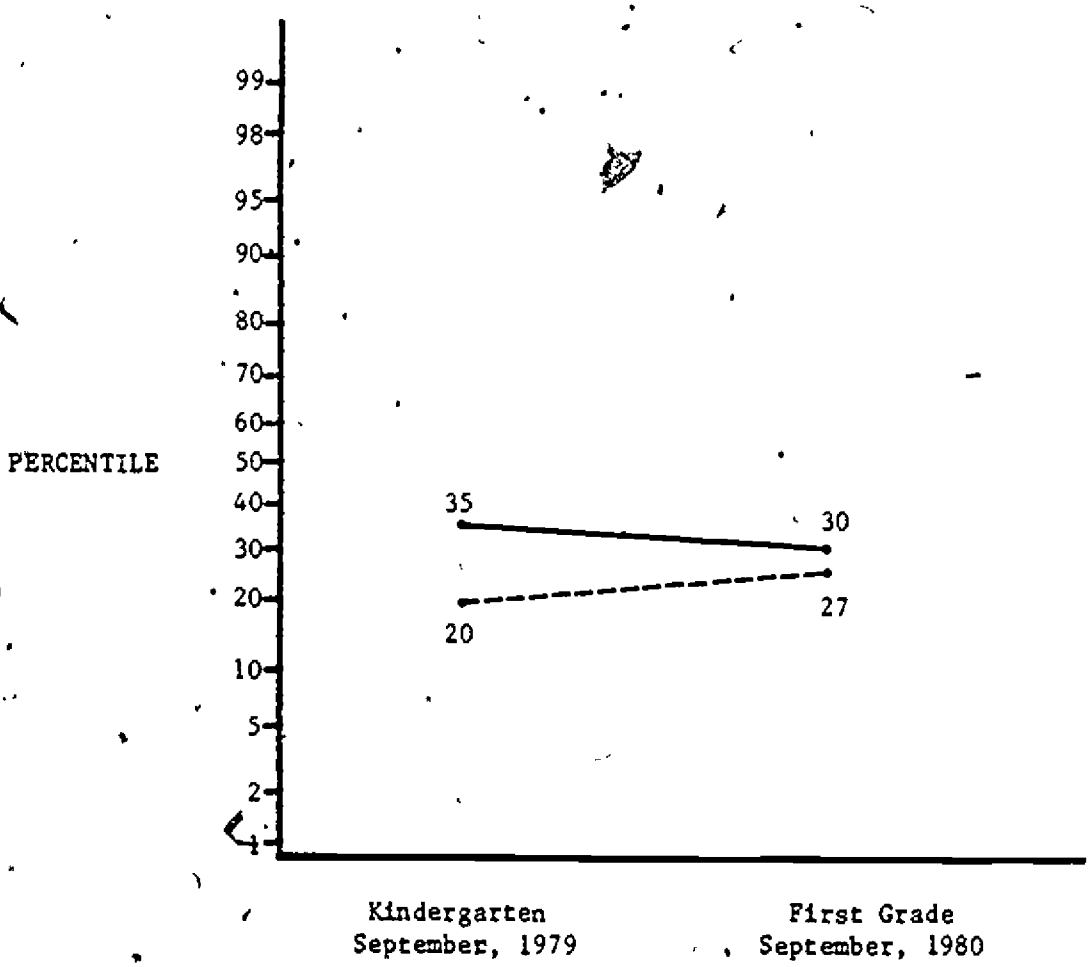

Figure C-2. CHANGES IN PERCENTILE RANKS OF FORMER TITLE I PRE-K STUDENTS AND A COMPARISON GROUP OF NONPARTICIPANTS FROM SEPTEMBER, 1979 TO SEPTEMBER, 1980.

*** OUTPUT FROM PROGRAM ANOVAR ***

FOLLOW-UP OF FIRST TITLE I PRE-K GROUP 1979 -- MRT 9/80

PARAMETERS
COL 1- 5 = 1
COL 6-10 = 2
COL 11-15 = 1
COL 16-20 = 0
COL 21-25 = 0

DATA FORMAT = (DUMMY)

GROUP 1 68 SUBJECTS. TITLE I PRE-K STUDENTS FROM 1978-79

GROUP 2 139 SUBJECTS. CONTROL GROUP -- FIRST GRADE 80-81

ANALYSIS FOR VARIABLE 1

SOURCE	MEAN SQUARE	D.F.	F-RATIO	P
TOTAL	176.6876	206.		
GROUPS	70.7921	1.	0.399	0.5353
ERROR (G)	177.2042	205.		

G MEAN	1	2
	41.6912	40.4460

COMPARISON OF SEPTEMBER, 1980 MRT SCORES FOR TITLE I PRE-K STUDENTS FROM 1978-75 WITH THOSE OF A COMPARISON GROUP.

ESEA Title I

Appendix D

IOWA TESTS OF BASIC SKILLS

Instrument Description Iowa Tests of Basic Skills 1978 Edition Form 7

Brief description of the instrument

Levels 7 and 8 were given to grades 1 and 2, respectively, to measure skills in the areas of Word Analysis, Vocabulary, Reading Comprehension, Spelling, Math Concepts, Math Problems, and Math Computation. ITBS levels 9-14 were administered to grades 3-6 with the test level for students in grades 4-6 chosen on the basis of their previous achievement scores (with teacher review). Levels 9-14 include subtests in all the areas mentioned for levels 7 and 8, except for Word Analysis. In addition, levels 9-14 include subtests measuring Capitalization, Punctuation, Usage, Visual Materials, and Reference Materials.

To whom was the instrument administered?

All elementary and junior high students, grades 1-8. Special education students were exempted as per Board Policy 512" and its supporting administrative regulation. Students of Limited English proficiency (LEP) were not exempt, but could be excused after one test on which they could not function validly. Scores for students who were monolingual or dominant in a language other than English were not included in the school or District summaries.

How many times was the instrument administered?

Once to each student.

When was the instrument administered?

The elementary schools administered the test April 28, 29, and 30, 1981. The dates for the junior high administration were February 17, 18, and 19. Tests were administered in the morning. Make-ups were administered the week after the regular testing.

Where was the instrument administered?

In each AISD elementary and junior high school, usually in the student's regular classroom.

Who administered the instrument?

Classroom teachers in the elementary schools. In the junior high schools, the counselor or Principal administered the tests over the public address system using taped directions provided by ORE. Teachers acted as test monitors in their classrooms at these schools.

What training did the administrators have?

Building Test Coordinators participated in planning sessions prior to the testing. Teacher training was the responsibility of the Building Test Coordinator. However, teacher inservice training was available from ORE upon request. Teachers and counselors received written instructions from ORE, including a checklist of procedures and a script to follow in test administration.

Was the instrument administered under standardized conditions?

Yes. Standardized instructions were distributed. ORE personnel monitored in a random selection of classrooms with results indicating that testing conditions were reasonably consistent across the District.

Were there problems with the instrument or the administration that might affect the validity of the data?

No known problems with the instrument. Problems in the administration are documented in the monitors' reports which are available at ORE.

Who developed the instrument?

The University of Iowa. The ITBS is published by the Riverside Publishing Company (Houghton Mifflin Company).

What reliability and validity data are available on the instrument?

The reliability of the subtests, as summarized by Kuder-Richardson Formula 20 coefficient, ranges from .90 to .98 across subtests and levels. The issues of content and construct validity are addressed in the publisher's preliminary technical summary, pp. 13-15.

Are there norm data available for interpreting the results?

Norm data are available in the Teacher's Guide. The Teacher's Guide provides empirical norms (grade equivalent, percentile, stanine) for the fall and spring. Interpolated norms are available for midyear. National, large city, and school building norms are available.

80.71

IOWA TEST OF BASIC SKILLS

Purpose

Results of the Iowa Test of Basic Skills were used to answer the following decision and evaluation questions from the Title I Evaluation Design for 1980-81.

Decision Question D1: Should the Title I Reading Improvement Program be modified? If so, how?

Evaluation D1-1: Were the objectives of the Title I reading component met?

Evaluation Question D1-6: How did the achievement of Title I students compare with that of a comparable group of formerly Title I students in schools without Title I?

Evaluation Question D1-7: How many Title I students scored high enough to exit from the Title I program during 1979-1980?

Evaluation Question D1-8: Was there a relationship between characteristics (cooperation in setting up the program, etc.) of the principals of Title I schools, as perceived by Title I reading coordinators, and the effectiveness of their Title I programs in terms of achievement gains?

Evaluation Question D1-10: Did 1980 At-Home Summer Program participants show larger achievement gains from April, 1980, to April, 1981, or October, 1980, to April, 1981, than the matched comparison groups?

Decision Question D2: Should Title I schoolwide projects be continued, expanded, or revised? If so, how?

Evaluation Question D2-1: Were the objectives of the schoolwide projects met?

Evaluation Question D2-2: Were the achievement gains made by low-achieving students (40th percentile or below) in the schoolwide projects equal to the gains made by low-achieving students in regular Title I schools?

Evaluation Question D2-3: Were the achievement gains made by high-achieving students (above 40th percentile) in the schoolwide projects equal to the gains made by high-achieving students in regular Title I schools?

Decision Question D3: Should the Rainbow Kit project be continued, modified, or discontinued?

Evaluation Question D3-1: Did the achievement gains of Rainbow Kit participants exceed those of non-participants in the control group?

The information gathered was used in partial fulfillment of Information Needs I2, I3, and I4 for the 1981-1982 Needs Assessment and Information Needs I20, I21, and I22 for the TEA Annual Evaluation Report.

I2: How similar are the results when the schools are ranked for Title I eligibility in each way possible under the Title I regulations?

I3: How many students in each school scored below selected percentile points on the Boehm, MRT, and ITBS?

I4: How many students would be eligible for Title I services for various combinations of criteria for campus and student eligibility?

I20: Using a Model C evaluation model, what NCE gain was made by Title I students at grades 2-6?

I21: What were the correlations between the pretest and posttest at grades 2-6 for Title I and comparison students? ... the standard deviations?

I22: How many Title I students scored at or below the chance level on the pretest and posttest?

Procedures

Procedures for the administration of the ITBS for 1980-81 can be found in the Final Technical Report, Systemwide Testing, Publication Number 80.39.

Because so many analyses were done using the ITBS, procedures are reported briefly along with the results related to each evaluation question or information need.

Results

The ITBS results are presented below by evaluation question and information need.

Evaluation Question D1-1: Were the objectives of the Title I reading component met?

Figures D-1 through D-6 compare the projected performance of the Title students with their actual gains. The evaluation of stratified objectives is somewhat ambiguous; however, it appears that achievement was higher than expected at all grades except at grade one where the achievement was essentially the same as projected.

Evaluation Question D1-6: How did the achievement of Title I students compare with that of a comparable group of formerly Title I students in schools without Title I?

The fact that many students from traditional Title I attendance areas were assigned to non-Title I schools by the District's desegregation plan provided a unique opportunity for Title I Evaluation to assess the impact of the Title I Program by comparing the gains of Title I students from traditional Title I attendance areas with those of the former Title I students who were not served by a compensatory program. The two groups of students were compared at grades 1-6 using the linear models described in Attachment D-1. Title I students were group 1 in the models. The results are presented in Figures D-7 through D-12 and in Attachment D-2. They show that the Title I students scored significantly higher than the former Title I students at grades 4 and 5. The former Title I students gained more at grade 1, and there was no difference at grades 2 and 3.

Evaluation Question D1-7: How many Title I students scored high enough to exit from the Title I Program during 1979-80?

Figure D-13 shows that from five to thirty-three percent of the Title I students scored high enough to exit in April, 1980, depending on the grade.

Evaluation Question D1-8: Was there a relationship between characteristics (cooperation in setting up the program, etc.) of the principals of Title I schools, as perceived by Title I reading coordinators, and the effectiveness of their Title I programs in terms of achievement gains?

A single rating of the overall support provided by Title I principals was obtained from Title I reading coordinators (see Attachment D-3). Attachment D-4 describes the linear models used to analyze the data, and Figures D-14 through D-20 and Attachment D-5 report the results. The only finding of interest was at grade 3 where the analyses revealed an interaction between ratings and achievement at grade 3. For a given pretest score, students generally scored higher on the posttest if their principals received a low rating from the coordinators. The opposite was true, however, for the lowest scoring students.

Evaluation Question D1-10: Did 1980 At-Home Summer Program participants show larger achievement gains from April, 1980, to April, 1981, than the matched comparison groups?

Figures D-21 through D-26 and Attachment D-6 report the findings for this question. The data were analyzed using the models in Attachment D-1, where group 1 was At-Home participants.

Evaluation Question D2-1: Were the objectives of the schoolwide projects met?

Yes, they were generally exceeded. Figures D-27 through D-35 display the results for the schoolwide projects.

Evaluation Question D2-2: Were the achievement gains made by low-achieving students (40th percentile or below) in the schoolwide projects equal to the gains made by low-achieving students in regular Title I schools?

Analyses were done to answer this question using the linear models in Attachment D-7. The groups indicated in the models were as described below.

Group 1: low-achieving students at Allison.
Group 2: low-achieving students at Becker.
Group 3: students served by Title I who live in a traditional Title I attendance area.
Group 4: low-scoring former Title I students from traditional Title I attendance areas and served by SCE.
Group 5: low-scoring former Title I students from traditional Title I attendance areas who were not served by SCE.

The pretest and posttest scores were April, 1980 and April, 1981 ITBS Average Reading grade equivalent scores respectively except at first grade where MRT Pre-Reading Composite raw score was the pretest.

The regression analysis results are reported in Figures D-36 through D-41 and Attachment D-8. Each set of analyses has at least one significant comparison. Figures D-42 through D-47 were prepared using the simplest acceptable model in each analysis. They show the results when the group's pretest

mean score was substituted into the resulting regression equation to get an expected posttest score and a gain. In cases where the groups had sifnificantly different regression slopes, a common pretest value (the total group mean) was also used to get an expected posttest score.

Evaluation Question D2-3: Were the achievement gains made by high-achieving students (above 40th percentile) in the schoolwide projects equal to the gains made by high-achieving students in regular Title I schools?

The models in Attachment D-1 were first used to see if the gains by high achievers at Allison and Becker differed significantly. The results in Figures D-48 through D-50 show that they did not. For these analyses, group 1 was defined as high-achieving students at Allison (see Attachment D-9).

The two groups of schoolwide project students were then combined into one group for comparison with high achievers at other schools. The models used in these analyses are described in Attachment D-10 and the results are reported in Figures D-51 through D-56 and Attachment D-11. Tables were created (Figures D-57 through D-60) for those grades at which significant differences occurred between models. They were prepared in the same way as the tables described under Evaluation Question D2-2.

Evaluation Question D3-1: Did the achievement gains of Rainbow Kit participants exceed those of nonparticipants in the control group?

The analyses conducted to answer this question were done using the models described in Attachment D-1. Group 1 was made up of Rainbow Kit recipients and Group 2 was nonrecipients. Pretest and posttest scores were the same as those used in the other analyses reported in this appendix. The results are reported in Figures D-61 through D-65 and Attachment D-12. A figure is included for grade 1 because the analysis done at that grade did not seem to be valid. A hand calculation showed the correlation between pretest and posttest for the control group at grade 1 to be -.03. There were no significant differences between participants and controls at other grades.

Information Need I20: Using a Model C evaluation model, what NCE gain was made by Title I students at grades 2-6?

Information Need I21: What were the correlations between the pretest and posttest at grades 2-6 for Title I and comparison students? ...the standard deviations?

The Model C analyses for the TEA report were done in two parts.

1. The model described in Attachment D-13 was used separately with Title I students and the comparison group at each grade. The comparison group was made up of non-Title I students in Title I schools who scored above the Title I eligibility criterion. These analyses provided all of the information necessary for the Model C comparisons.

2. The second part was to use the models in Attachment D-1 to compare the two groups. The main reason was to check for unequivalent slopes. Group 1 in the analyses was made up of Title I students.

Figures D-66 through D-75 display the Model C results and the other information required by TEA. Attachment D-14 provides the printed output. The results of the significance tests comparing the two groups can be found in Figures D-76 through D-80 and Attachment D-15.

Results		Expected	Will Score
Number	Percent	Percent	(in Grade Equivalents)...
114	18.2	18	>1.9
50	8.0	9	1.7 to 1.8
107	17.1	18	1.4 to 1.6
132	21.1	21	1.1 to 1.3
223	35.6	34	≤1.0

Mean = 1.32

Percent Pre- and Posttested = 80.8

Figure D-1. MEASUREMENT OF THE READING COMPONENT OBJECTIVE AT GRADE 1, AVERAGE READING GRADE EQUIVALENT.

Results		Expected	Will Gain
Number	Percent	Percent	(in Grade Equivalents). .
36	11.5	4	≥1.6 months per month
79	25.2	17	1.0-1.5 months per month
84	26.8	21	0.6-0.9 months per month
83	26.4	32	0.1-0.5 months per month
32	10.2	26	will show no gain

Pretest average = 1.08

Posttest average = 1.88

Average gain = 0.80

Percent Pre- and Posttested = 60.2

Figure D-2. MEASUREMENT OF THE READING COMPONENT OBJECTIVE AT GRADE 2, AVERAGE READING GRADE EQUIVALENT.

Results		Expected	Will Gain
Number	Percent	Percent	(in Grade Equivalents)...
54	15.1	10	≥1.6 months per month
105	29.3	28	1.0-1.5 months per month
99	27.7	33	0.6-0.9 months per month
77	21.5	19	0.1-0.5 months per month
23	6.4	10	will show no gain

Pretest average = 1.75

Posttest average = 2.66

Average gain = 0.91

Percent Pre- and Posttested = 68.1

Figure D-3. MEASUREMENT OF READING COMPONENT OBJECTIVE AT GRADE 3, AVERAGE READING GRADE EQUIVALENT.

Results		Expected	
Number	Percent	Percent	Will Gain...
59	17.0	12	≥10 percentile points
24	6.9	3	7-9 percentile points
23	6.6	4	4-6 percentile points
46	13.3	8	1-3 percentile points
195	56.2	73	≤0 percentile points

Percent Pre- and Posttested = 73.5

Figure D-4. MEASUREMENT OF THE READING COMPONENT OBJECTIVE AT GRADE 4, READING TOTAL PERCENTILE.

Results		Expected	
Number	Percent	Percent	Will Gain...
77	24.1	15	≥10 percentile points
24	7.5	7	7-9 percentile points
34	10.6	7	4-6 percentile points
50	15.6	15	1-3 percentile points
135	42.2	56	≤0 percentile points

Percent Pre- and Posttested = 73.9

Figure D-5. MEASUREMENT OF THE READING COMPONENT OBJECTIVE AT GRADE 5, READING TOTAL PERCENTILE.

Results		Expected	
Number	Percent	Percent	Will Gain...
61	21.2	15	≥10 percentile points
22	7.6	7	7-9 percentile points
37	12.9	7	4-6 percentile points
34	11.8	15	1-3 percentile points
134	46.5	56	≤0 percentile points

Percent Pre- and Posttested = 73.1

Figure D-6. MEASUREMENT OF THE READING COMPONENT OBJECTIVE AT GRADE 6, READING TOTAL PERCENTILE.

Models			RSQ				
Full		Restricted	Full	Restricted	df	F	p
1	vs	2	.1622	.1643	1, 388	0.000	1.0000
2	vs	3	.1643	.1642	1, 389	0.014	0.9003
3	vs	4	.1642	.1636	1, 390	0.311	0.5844
4	vs	5	.1636	.1390	1, 391	11.504	0.0011

Figure D-7. MODELS COMPARING TITLE I STUDENTS (N=293) FROM TRADITIONAL TITLE I ATTENDANCE AREAS WITH FORMER TITLE I STUDENTS (N=101) ALSO FROM TRADITIONAL TITLE I ATTENDANCE AREAS, GRADE 1.

Models			RSQ				
Full		Restricted	Full	Restricted	df	F	p
1	vs	2	.0467	.0457	1, 304	0.327	0.5749
2	vs	3	.0457	.0376	1, 305	2.596	0.1041
3	vs	4	.0376	.0339	1, 306	1.149	0.2844
4	vs	5	.0339	.0334	1, 307	0.184	0.6725

Figure D-8. MODELS COMPARING TITLE I STUDENTS (N=224) FROM TRADITIONAL TITLE I ATTENDANCE AREAS WITH FORMER TITLE I STUDENTS (N=86) ALSO FROM TRADITIONAL TITLE I ATTENDANCE AREAS, GRADE 2.

Models			RSQ				
Full		Restricted	Full	Restricted	df	F	p
1	vs	2	.2474	.2476	1, 300	0.000	1.0000
2	vs	3	.2476	.2429	1, 301	1.864	0.1696
3	vs	4	.2429	.2416	1, 302	0.551	0.4653
4	vs	5	.2416	.2407	1, 303	0.358	0.5570

Figure D-9. MODELS COMPARING TITLE I STUDENTS (N=241) FROM TRADITIONAL TITLE I ATTENDANCE AREAS WITH FORMER TITLE I STUDENTS (N=65) ALSO FROM TRADITIONAL TITLE I ATTENDANCE AREAS, GRADE 3.

Models			RSQ				
Full		Restricted	Full	Restricted	df	F	p
1	vs	2	.4612	.4604	1, 366	0.501	0.4867
2	vs	3	.4604	.4540	1, 367	4.372	0.0349
3	vs	4	.4540	.4541	1, 368	0.000	1.0000
4	vs	5	.4541	.4519	1, 369	1.442	0.2285

Figure D-10. MODELS COMPARING TITLE I STUDENTS (N=264) FROM TRADITIONAL TITLE I ATTENDANCE AREAS WITH FORMER TITLE I STUDENTS (N=108) ALSO FROM TRADITIONAL TITLE I ATTENDANCE AREAS, GRADE 4.

Models			RSQ				
Full		Restricted	Full	Restricted	df	F	p
1	vs	2	.6040	.6039	1, 360	0.067	0.7914
2	vs	3	.6039	.5879	1, 361	14.614	0.0004
3	vs	4	.5879	.5876	1, 362	0.251	0.6229
4	vs	5	.5876	.5862	1, 363	1.276	0.2581

Figure D-11. MODELS COMPARING TITLE I STUDENTS (N=239) FROM TRADITIONAL TITLE I ATTENDANCE AREAS WITH FORMER TITLE I STUDENTS (N=127) ALSO FROM TRADITIONAL TITLE I ATTENDANCE AREAS, GRADE 5.

Models			RSQ				
Full		Restricted	Full	Restricted	df	F	p
1	vs	2	.5858	.5865	1, 332	0.000	1.0000
2	vs	3	.5865	.5854	1, 333	0.862	0.3563
3	vs	4	.5854	.5847	1, 334	0.529	0.4745
4	vs	5	.5847	.5844	1, 335	0.297	0.5930

Figure D-12. MODELS COMPARING TITLE I STUDENTS (N=188) FROM TRADITIONAL TITLE I ATTENDANCE AREAS WITH FORMER TITLE I STUDENTS (N=150) ALSO FROM TRADITIONAL TITLE I ATTENDANCE AREAS, GRADE 6.

Grade	Criterion	Scored High Enough to Exit	
		Number	Percent
1	≤1.5 G.E.	282	33
2	≤2.5 G.E.	45	9
3	≤40th %ile	32	6
4	≤40th %ile	28	5
5	≤40th %ile	27	5

Figure D-13. NUMBER AND PERCENT OF 1979-80 TITLE I PARTICIPANTS WHO EXITED FROM THE PROGRAM IN APRIL, 1980.

Rating of Support	N	Pretest Grade Equivalent .5	1.0	1.34	1.5	1.75*	2.0	2.5
Very Low	0	-	-	-	-	-	-	-
Low	94	1.46	1.98	2.34	2.51	2.77	3.04	3.56
Average	37	1.61	2.05	2.34	2.48	2.70	2.91	3.35
High	190	1.77	2.11	2.34	2.45	2.62	2.79	3.13
Very High	36	1.92	2.17	2.34	2.42	2.54	2.67	2.92

*Mean pretest value for all students

Figure D-14. PREDICTED POSTTEST GRADE EQUIVALENT SCORES FOR DIFFERENT LEVELS OF PRETEST SCORE AND RATING OF PRINCIPALS' SUPPORT FOR THE TITLE I PROGRAM, GRADE 3.

Rating of Support	N	Pretest Grade Equivalent 2.0	2.5	3.0	3.33*	3.5	4.0	4.5
Very Low	93	2.98	3.34	3.79	4.13	4.32	4.93	5.63
Low	38	3.09	3.33	3.66	3.92	4.07	4.57	5.15
Average	80	2.82	3.31	3.89	4.32	4.55	5.30	6.12
High	101	3.00	3.38	3.84	4.19	4.38	5.01	5.72
Very High	6	3.06	3.45	3.91	4.27	4.47	5.10	5.82

*Mean pretest value for all students

Figure D-15. PREDICTED POSTTEST GRADE EQUIVALENT SCORES FOR DIFFERENT LEVELS OF PRETEST SCORE AND RATING OF PRINCIPALS' SUPPORT FOR THE TITLE I PROGRAM, GRADE 5.

Models			RSQ				
Full		Restricted	Full	Restricted	df	F	p
1	vs	2	.0792	.0779	3, 300	0.136	.938
2	vs	3	.0779	.0673	5, 303	0.697	.628
3	vs	4	.0673	.0642	2, 308	0.504	.611
3	vs	5	.0673	.0667	1, 308	0.211	.651
5	vs	4	.0667	.0642	1, 309	0.799	.376

Figure D-16. COMPARISON OF MODELS RELATING STUDENT ACHIEVEMENT AND LEVELS OF PRINCIPAL SUPPORT FOR TITLE I: VERY LOW SUPPORT (N=0), LOW (N=68), AVERAGE (N=26), HIGH (N=172), AND VERY HIGH (N=46). GRADE 2.

Models			RSQ				
Full		Restricted	Full	Restricted	df	F	p
1	vs	2	.3172	.3175	3, 345	0.000	1.000
2	vs	3	.3175	.3077	5, 348	0.996	0.421
3	vs	4	.3077	.2822	2, 353	6.500	0.002
3	vs	5	.3077	.2910	1, 353	8.555	0.004
5	vs	4	.2910	.2822	1, 354	4.352	0.035

Figure D-17. COMPARISON OF MODELS RELATING STUDENT ACHIEVEMENT AND LEVELS OF PRINCIPAL SUPPORT FOR TITLE I: VERY LOW SUPPORT (N=0), LOW (N=94), AVERAGE (N=37), HIGH (N=190), AND VERY HIGH (N=36). GRADE 3.

Models			RSQ				
Full		Restricted	Full	Restricted	df	F	p
1	vs	2	.4902	.4903	4, 330	0.000	1.000
2	vs	3	.4903	.4824	7, 334	0.734	0.645
3	vs	4	.4824	.4782	2, 341	1.394	0.248
3	vs	5	.4824	.4793	1, 341	2.063	0.148
5	vs	4	.4793	.4782	1, 342	0.722	0.401

Figure D-18. COMPARISON OF MODELS RELATING STUDENT ACHIEVEMENT AND LEVELS OF PRINCIPAL SUPPORT FOR TITLE I: VERY LOW SUPPORT (N=99), LOW (N=52), AVERAGE (N=80), HIGH (N=106), AND VERY HIGH (N=8). GRADE 4.

Models			RSQ				
Full		Restricted	Full	Restricted	df	F	p
1	vs	2	.6397	.6407	4, 303	0.000	1.000
2	vs	3	.6407	.6065	7, 307	4.182	<0.001
3	vs	4	.6065	.6012	2, 314	2.119	0.120
3	vs	5	.6065	.6040	1, 314	1.971	0.158
5	vs	4	.6040	.6012	1, 315	2.260	0.130

Figure D-19. COMPARISON OF MODELS RELATING STUDENT ACHIEVEMENT AND LEVELS OF PRINCIPAL SUPPORT FOR TITLE I: VERY LOW SUPPORT (N=93), LOW (N=38), AVERAGE (N=80), HIGH (N=101), AND VERY HIGH (N=6). GRADE 5.

80.71

Models			RSQ				
Full		Restricted	Full	Restricted	df	F	p
1	vs	2	.5570	.5548	4, 273	0.342	0.850
2	vs	3	.5548	.5425	7, 277	1.096	0.366
3	vs	4	.5425	.5416	2, 284	0.261	0.774
3	vs	5	.5425	.5420	1, 284	0.312	0.584
5	vs	4	.5420	.5416	1, 285	0.211	0.651

Figure D-20. COMPARISON OF MODELS RELATING STUDENT ACHIEVEMENT AND LEVELS OF PRINCIPAL SUPPORT FOR TITLE I: VERY LOW SUPPORT (N=82), LOW (N=40), AVERAGE (N=67), HIGH (N=93), AND VERY HIGH (N=6). GRADE 6.

Models			RSQ				
Full		Restricted	Full	Restricted	df	F	p
1	vs	2	.6177	.6146	1, 42	0.335	0.5728
2	vs	3	.6146	.6032	1, 43	1.277	0.2638
3	vs	4	.6032	.5852	1, 44	1.993	0.1616
4	vs	5	.5852	.5823	1, 45	0.313	0.5851

Figure D-21. MODELS COMPARING AT HOME PARTICIPANTS (N=24) WITH CONTROLS (N=24), GRADE 1.

Models			RSQ				
Full		Restricted	Full	Restricted	df	F	p
1	vs	2	.4420	.4122	1, 88	4.689	0.0310
2	vs	3	.4122	.3583	1, 89	8.162	0.0055
3	vs	4	.3583	.3362	1, 90	3.105	0.0777
4	vs	5	.3362	.3276	1, 91	1.177	0.2805

Figure D-22. MODELS COMPARING AT HOME PARTICIPANTS (N=47) WITH CONTROLS (N=47), GRADE 2.

Models			RSQ				
Full		Restricted	Full	Restricted	df	F	p
1	vs	2	.5143	.5151	1, 38	0.000	1.0000
2	vs	3	.5151	.5070	1, 39	0.651	0.4303
3	vs	4	.5070	.5034	1, 40	0.287	0.6015
4	vs	5	.5034	.4967	1, 41	0.554	0.4676

Figure D-23. MODELS COMPARING AT HOME PARTICIPANTS (N=22) WITH CONTROLS (N=22), GRADE 3.

Models			RSQ				
Full		Restricted	Full	Restricted	df	F	p
1	vs	2	.5725	.5563	1, 22	0.835	0.3739
2	vs	3	.5563	.5414	1, 23	0.771	0.3928
3	vs	4	.5414	.5217	1, 24	1.030	0.3214
4	vs	5	.5217	.5081	1, 25	0.713	0.4112

Figure D-24. MODELS COMPARING AT HOME PARTICIPANTS (N=14) WITH CONTROLS (N=14), GRADE 4.

Models			RSQ				
Full		Restricted	Full	Restricted	df	F	p
1	vs	2	.9167	.9119	1, 36	2.058	0.1566
2	vs	3	.9119	.9119	1, 37	0.000	1.0000
3	vs	4	.9119	.8912	1, 38	8.930	0.0051
4	vs	5	.8912	.8906	1, 39	0.219	0.6474

Figure D-25. MODELS COMPARING AT HOME PARTICIPANTS (N=21) WITH CONTROLS (N=21), GRADE 5.

Models			RSQ				
Full		Restricted	Full	Restricted	df	F	p
1	vs	2	.8135	.7922	1, 26	2.978	0.0928
2	vs	3	.7922	.7219	1, 27	9.126	0.0056
3	vs	4	.7219	.7217	1, 28	0.027	0.8640
4	vs	5	.7217	.6968	1, 29	2.587	0.1150

Figure D-26. MODELS COMPARING AT HOME PARTICIPANTS (N=16) WITH CONTROLS (N=16), GRADE 6.

Results		Expected	Will Gain
Number	Percent	Percent	(in Grade Equivalents)...
24	27.3	13	≥1.9
9	11.7	11	1.7 to 1.8
12	15.6	19	1.4 to 1.6
14	18.2	24	1.1 to 1.3
21	27.3	33	≤1.0

Figure D-27. MEASUREMENT OF THE ALLISON SCHOOLWIDE OBJECTIVE AT GRADE 1, AVERAGE READING GRADE EQUIVALENT.

Results		Expected	Will Gain
Number	Percent	Percent	(in Grade Equivalents)
20	25.6	9	≥1.6 months per month
23	29.5	13	1.0-1.5 months per month
13	16.7	29	0.6-0.9 months per month
13	16.7	31	0.1-0.5 months per month
9	11.5	18	will show no gain

Figure D-28. MEASUREMENT OF THE ALLISON SCHOOLWIDE OBJECTIVE AT GRADE 2, AVERAGE READING GRADE EQUIVALENT.

Results		Expected	Will Gain
Number	Percent	Percent	(in Grade Equivalents)...
18	21.4	22	≥1.6 months per month
41	48.8	37	1.0-1.5 months per month
14	16.7	29	0.6-0.9 months per month
9	10.7	10	0.1-0.5 months per month
2	2.4	2	will show no gain

Figure D-29. MEASUREMENT OF THE ALLISON SCHOOLWIDE OBJECTIVE AT GRADE 3, AVERAGE READING GRADE EQUIVALENT.

Results		Expected	Will Gain
Number	Percent	Percent	(in Grade Equivalents)...
51	63.8	52	≥1.9
4	5.0	13	1.7 to 1.8
10	12.5	17	1.4 to 1.6
11	13.8	7	1.1 to 1.3
4	5.0	11	≤1.0

Figure D-30. MEASUREMENT OF THE BECKER SCHOOLWIDE OBJECTIVE AT GRADE 1, AVERAGE READING GRADE EQUIVALENT.

Results		Expected	Will Gain
Number	Percent	Percent	(in Grade Equivalents).
10	13.9	1	≥1.6 months per month
11	15.3	9	1.0-1.5 months per month
19	26.4	14	0.6-0.9 months per month
18	25.0	32	0.1-0.5 months per month
14	19.4	44	will show no gain

Figure D-31. MEASUREMENT OF THE BECKER SCHOOLWIDE OBJECTIVE AT GRADE 2, AVERAGE READING GRADE EQUIVALENT.

Results		Expected	Will Gain
Number	Percent	Percent	(in Grade Equivalents).
10	13.3	4	≥1.6 months per month
27	36.0	31	1.0-1.5 months per month
26	34.7	26	0.6-0.9 months per month
10	13.3	24	0.1-0.5 months per month
2	2.7	15	will show no gain

Figure D-32. MEASUREMENT OF THE BECKER SCHOOLWIDE OBJECTIVE AT GRADE 3, AVERAGE READING GRADE EQUIVALENT.

80.71

Results		Expected	
Number	Percent	Percent	Will Gain...
9	16.1	8	≥10 percentile points
8	14.3	3	7-9 percentile points
8	14.3	6	4-6 percentile points
4	7.1	8	1-3 percentile points
27	48.2	75	≤0 percentile points

Figure D-33. MEASUREMENT OF THE BECKER SCHOOLWIDE OBJECTIVE AT GRADE 4, READING TOTAL PERCENTILE.

Results		Expected	
Number	Percent	Percent	Will Gain...
17	45.9	17	≥10 percentile points
2	5.4	3	7-9 percentile points
6	16.2	8	4-6 percentile points
1	2.7	18	1-3 percentile points
11	29.7	54	≤0 percentile points

Figure D-34. MEASUREMENT OF THE BECKER SCHOOLWIDE OBJECTIVE AT GRADE 5, READING TOTAL PERCENTILE.

Results		Expected	
Number	Percent	Percent	Will Gain...
17	27.4	17	≥10 percentile points
3	4.8	3	7-9 percentile points
8	12.9	8	4-6 percentile points
17	27.4	18	1-3 percentile points
17	27.4	54	≤0 percentile points

Figure D-35. MEASUREMENT OF THE BECKER SCHOOLWIDE OBJECTIVE AT GRADE 6, READING TOTAL PERCENTILE.

Models			RSQ				
Full		Restricted	Full	Restricted	df	F	p
1	vs	2	.1978	.1980	4, 502	0.000	1.0000
2	vs	3	.1980	.1988	1, 506	0.000	1.0000
3	vs	4	.1988	.1886	4, 507	1.614	0.1682
4	vs	5	.1886	.1422	4, 511	7.306	0.0001

Figure D-36. MODELS COMPARING LOW ACHIEVING STUDENTS AT ALLISON (N=54), AND BECKER (N=39), TITLE I REGULAR STUDENTS (N=293), FORMER TITLE I STUDENTS SERVED BY SCE (N=30), AND FORMER TITLE I STUDENTS NOT SERVED BY SCE (N=101), GRADE 1.

Models			RSQ				
Full		Restricted	Full	Restricted	df	F	p
1	vs	2	.1084	.0979	4, 408	1.204	0.3080
2	vs	3	.0979	.0929	1, 412	2.248	0.1305
3	vs	4	.0929	.0838	4, 413	1.045	0.3843
4	vs	5	.0838	.0404	4, 417	4.930	0.0010

Figure D-37. MODELS COMPARING LOW ACHIEVING STUDENTS AT ALLISON (N=53) AND BECKER (N=24), TITLE I REGULAR STUDENTS (N=224), FORMER TITLE I STUDENTS SERVED BY SCE (N=36), AND FORMER TITLE I STUDENTS NOT SERVED BY SCE (N=86), GRADE 2.

Models			RSQ				
Full		Restricted	Full	Restricted	df	F	p
1	vs	2	.3316	.3325	4, 439	0.000	1.0000
2	vs	3	.3325	.3318	1, 443	0.493	0.4903
3	vs	4	.3318	.3166	4, 444	2.515	0.0403
4	vs	5	.3166	.2840	4, 448	5.348	0.0006

Figure D-38. MODELS COMPARING LOW ACHIEVING STUDENTS AT ALLISON (N=66) AND BECKER (N=46), TITLE I REGULAR STUDENTS (N=241), FORMER TITLE I STUDENTS SERVED BY SCE (N=36), AND FORMER TITLE I STUDENTS NOT SERVED BY SCE (N=65), GRADE 3.

Models			RSQ				
Full		Restricted	Full	Restricted	df	F	p
1	vs	2	.4974	.4973	3, 491	0.039	0.9892
2	vs	3	.4973	.4897	1, 494	7.403	0.0068
3	vs	4	.4897	.4867	3, 495	0.970	0.4078
4	vs	5	.4867	.4698	3, 498	5.479	0.0014

Figure D-39. MODELS COMPARING LOW ACHIEVING STUDENTS AT BECKER (N=29), TITLE I REGULAR STUDENTS (N=264), FORMER TITLE I STUDENTS SERVED BY SCE (N=102), AND FORMER TITLE I STUDENTS NOT SERVED BY SCE (N=108), GRADE 4.

Models			RSQ				
Full		Restricted	Full	Restricted	df	F	p
1	vs	2	.6149	.6142	3, 459	0.274	0.8452
2	vs	3	.6142	.6028	1, 462	13.704	0.0005
3	vs	4	.6028	.5977	3, 463	1.964	0.1171
4	vs	5	.5977	.5841	3, 466	5.251	0.0018

Figure D-40. MODELS COMPARING LOW ACHIEVING STUDENTS AT BECKER (N=24), TITLE I REGULAR STUDENTS (N=239), FORMER TITLE I STUDENTS SERVED BY SCE (N=81), AND FORMER TITLE I STUDENTS NOT SERVED BY SCE (N=127), GRADE 5.

Models			RSQ				
Full		Restricted	Full	Restricted	df	F	p
1	vs	2	.5803	.5805	3, 448	0.000	1.0000
2	vs	3	.5805	.5752	1, 451	5.647	0.0170
3	vs	4	.5752	.5745	3, 452	0.261	0.8550
4	vs	5	.5745	.5687	3, 455	2.048	0.1049

Figure D-41. MODELS COMPARING LOW ACHIEVING STUDENTS AT BECKER (N=46), TITLE I REGULAR STUDENTS (N=188), FORMER TITLE I STUDENTS SERVED BY SCE (N=76), AND FORMER TITLE I STUDENTS NOT SERVED BY SCE (N=150), GRADE 6.

80.71

Group	N	Pretest Mean	Predicted Posttest	Predicted Posttest for Common Pretest*
Allison	54	31.8	1.277	1.331
Becker	39	38.2	1.760	1.667
Title I	293	33.8	1.247	1.256
FTI-S**	30	28.9	1.134	1.256
FTI-N***	101	36.6	1.513	1.458

* Overall pretest mean 34.1799
** Former Title I Students Served by SCE
*** Former Title I Students Not Served by SCE

Figure D-42. EXPECTED POSTTEST PERFORMANCE FOR LOW-ACHIEVING SCHOOLWIDE PROJECT STUDENTS, TITLE I STUDENTS FROM TRADITIONAL TITLE I ATTENDANCE AREAS, FORMER TITLE I STUDENTS SERVED BY SCE, AND FORMER TITLE I STUDENTS NOT SERVED BY SCE, GRADE 1. MODEL 4 USED TO OBTAIN POSTTEST SCORES.

Group	N	Pretest Mean	Predicted Posttest	Gain
Allison	53	1.12	2.18	1.06
Becker	24	1.17	1.82	.65
Title I	224	1.08	1.86	.78
FTI-S*	36	.98	1.58	.60
FTI-N*	86	1.01	1.87	.86

* See Figure D-42 for definition.

Figure D-43. EXPECTED GAIN FOR LOW-ACHIEVING SCHOOLWIDE PROJECT STUDENTS, TITLE I STUDENTS FROM TRADITIONAL TITLE I ATTENDANCE AREAS, FORMER TITLE I STUDENTS SERVED BY SCE, AND FORMER TITLE I STUDENTS NOT SERVED BY SCE, GRADE 2. MODEL 4 USED TO OBTAIN POSTTEST SCORES.

Group	N	Pretest Mean	Predicted Posttest	Gain	Gain With Common Pretest*
Allison	66	1.71	2.82	1.11	1.10
Becker	46	1.63	2.55	.92	.98
Title I	241	1.72	2.59	.87	.86
FTI-S**	36	1.58	2.20	.62	.65
FTI-N**	65	1.74	2.66	.92	.90

* Overall pretest mean=1.7033.
** See Figure D-42 for definitions.

Figure D-44. EXPECTED GAIN FOR LOW-ACHIEVING SCHOOLWIDE PROJECT STUDENTS, TITLE I STUDENTS FROM TRADITIONAL TITLE I ATTENDANCE AREAS, FORMER TITLE I STUDENTS SERVED BY SCE, AND FORMER TITLE I STUDENTS NOT SERVED BY SCE, GRADE 3. MODEL 3 USED TO OBTAIN POSTTEST SCORES.

Group	N	Pretest Mean	Predicted Posttest	Gain	Gain With Common Pretest*
Becker	29	2.58	3.52	.94	.94
Title I	264	2.64	3.34	.70	.70
FTI-S**	102	2.29	2.78	.49	.47
FTI-N**	108	2.49	3.11	.62	.62

* Overall pretest mean=2.5332.
** See Figure D-42 for definitions.

Figure D-45. EXPECTED GAINS FOR LOW-ACHIEVING SCHOOLWIDE PROJECT STUDENTS, TITLE I STUDENTS FROM TRADITIONAL TITLE I ATTENDANCE AREAS, FORMER TITLE I STUDENTS SERVED BY SCE, AND FORMER TITLE I STUDENTS NOT SERVED BY SCE, GRADE 4. MODEL 2 USED TO OBTAIN POSTTEST SCORES.

Group	N	Pretest Mean	Predicted Posttest	Gain	Gain With Common Pretest*
Becker	24	3.47	4.63	1.16	1.15
Title I	239	3.31	4.12	.81	.80
FTI-S**	81	2.75	3.37	.62	.56
FTI-N**	127	3.11	3.86	.75	.75

* Overall pretest mean=3.1692.
** See Figure D-42 for definitions.

Figure D-46. EXPECTED GAIN FOR LOW-ACHIEVING SCHOOLWIDE PROJECT STUDENTS, TITLE I STUDENTS FROM TRADITIONAL TITLE I ATTENDANCE AREAS, FORMER TITLE I STUDENTS SERVED BY SCE, AND FORMER TITLE I STUDENTS NOT SERVED BY SCE, GRADE 5. MODEL 2 WAS USED TO OBTAIN POSTTEST SCORES.

Group	N	Pretest Mean	Predicted Posttest	Gain	Gain With Common Pretest*
Becker	46	3.95	4.92	.97	.97
Title I	188	4.02	4.77	.75	.75
FTI-S**	76	3.62	4.33	.71	.69
FTI-N**	150	4.03	4.83	.80	.81

* Overall pretest mean=3.9496.
** See Figure D-42 for definitions.

Figure D-47. EXPECTED GAIN FOR LOW-ACHIEVING SCHOOLWIDE PROJECT STUDENTS, TITLE I STUDENTS FROM TRADITIONAL TITLE I ATTENDANCE AREAS, FORMER TITLE I STUDENTS SERVED BY SCE, AND FORMER TITLE I STUDENTS NOT SERVED BY SCE, GRADE 6. MODEL 2 WAS USED TO OBTAIN POSTTEST SCORES.

Models			RSQ				
Full		Restricted	Full	Restricted	df	F	p
1	vs	2	.3126	.3137	1, 58	0.000	1.0000
2	vs	3	.3137	.3104	1, 59	0.282	0.6040
3	vs	4	.3104	.3065	1, 60	0.342	0.5680
4	vs	5	.3065	.2750	1, 61	2.772	0.0972

Figure D-48. MODELS COMPARING HIGH ACHIEVERS AT ALLISON (N=23) AND BECKER (N=41) SCHOOLWIDE PROJECTS, GRADE 1.

Models			RSQ				
Full		Restricted	Full	Restricted	df	F	p
1	vs	2	.4192	.4188	1, 67	0.042	0.8327
2	vs	3	.4188	.4183	1, 68	0.058	0.8060
3	vs	4	.4183	.4185	1, 69	0.000	1.0000
4	vs	5	.4185	.4051	1, 70	1.619	0.2048

Figure D-49. MODELS COMPARING HIGH ACHIEVERS AT ALLISON (N=25) AND BECKER (N=48) SCHOOLWIDE PROJECTS, GRADE 2.

Models			RSQ				
Full		Restricted	Full	Restricted	df	F	p
1	vs	2	.5544	.5550	1, 41	0.000	1.0000
2	vs	3	.5550	.5576	1, 42	0.000	1.0000
3	vs	4	.5576	.5523	1, 43	0.517	0.4828
4	vs	5	.5523	.5309	1, 44	2.105	0.1503

Figure D-50. MODELS COMPARING HIGH ACHIEVERS AT ALLISON (N=18) AND BECKER (N=29) SCHOOLWIDE PROJECTS, GRADE 3.

Models			RSQ				
Full		Restricted	Full	Restricted	df	F	p
1	vs	2	.2701	.3044	2, 711	0.000	1.0000
2	vs	3	.3044	.2858	1, 713	19.091	0.0001
3	vs	4	.2858	.2860	2, 714	0.000	1.0000
4	vs	5	.2860	.2837	2, 716	1.143	0.3194

Figure D-51. MODELS COMPARING HIGH ACHIEVERS AT SCHOOLWIDE PROJECTS (N=64) WITH HIGH ACHIEVERS FROM TITLE I SCHOOLS (FROM TRADITIONAL TITLE I ATTENDANCE AREAS) (N=380) AND HIGH-ACHIEVING FORMER TITLE I STUDENTS ATTENDING NON-TITLE I SCHOOLS (N=276), GRADE 1.

Models			RSQ				
Full		Restricted	Full	Restricted	df	F	p
1	vs	2	.4396	.4460	2, 709	0.000	1.0000
2	vs	3	.4460	.4466	1, 711	0.000	1.0000
3	vs	4	.4466	.4419	2, 712	3.002	0.0488
4	vs	5	.4419	.4414	2, 714	0.307	0.7405

Figure D-52. MODELS COMPARING HIGH ACHIEVERS AT SCHOOLWIDE PROJECTS (N=73) WITH HIGH ACHIEVERS FROM TITLE I SCHOOLS (FROM TRADITIONAL TITLE I ATTENDANCE AREAS) (N=284) AND HIGH-ACHIEVING FORMER TITLE I STUDENTS ATTENDING NON-TITLE I SCHOOLS (N=361), GRADE 2.

Models			RSQ				
Full		Restricted	Full	Restricted	df	F	p
1	vs	2	.5053	.5220	2, 614	0.000	1.0000
2	vs	3	.5220	.5179	1, 616	5.278	0.0207
3	vs	4	.5179	.5178	2, 617	0.086	0.9170
4	vs	5	.5718	.5082	2, 619	6.176	0.0026

Figure D-53. MODELS COMPARING HIGH ACHIEVERS AT SCHOOLWIDE PROJECTS (N=47) WITH HIGH ACHIEVERS FROM TITLE I SCHOOLS (FROM TRADITIONAL TITLE I ATTENDANCE AREAS) (N=268) AND HIGH-ACHIEVING FORMER TITLE I STUDENTS ATTENDING NON-TITLE I SCHOOLS (N=308), GRADE 3.

Models			RSQ				
Full		Restricted	Full	Restricted	df	F	p
1	vs	2	.5777	.5773	2, 518	0.217	0.8072
2	vs	3	.5773	.5780	1, 520	0.000	1.0000
3	vs	4	.5780	.5766	2, 521	0.866	0.4244
4	vs	5	.5766	.5745	2, 523	1.314	0.2688

Figure D-54. MODELS COMPARING HIGH ACHIEVERS AT SCHOOLWIDE PROJECTS (N=27) WITH HIGH ACHIEVERS FROM TITLE I SCHOOLS (FROM TRADITIONAL TITLE I ATTENDANCE AREAS) (N=176) AND HIGH-ACHIEVING FORMER TITLE I STUDENTS ATTENDING NON-TITLE I SCHOOLS (N=324), GRADE 4.

Models			RSQ				
Full		Restricted	Full	Restricted	df	F	p
1	vs	2	.6764	.6764	2, 391	0.000	1.0000
2	vs	3	.6764	.6768	1, 393	0.000	1.0000
3	vs	4	.6768	.6778	2, 394	0.000	1.0000
4	vs	5	.6778	.6715	2, 396	3.871	0.0211

Figure D-55. MODELS COMPARING HIGH ACHIEVERS AT SCHOOLWIDE PROJECTS (N=13) WITH HIGH ACHIEVERS FROM TITLE I SCHOOLS (FROM TRADITIONAL TITLE I ATTENDANCE AREAS) (N=147) AND HIGH-ACHIEVING FORMER TITLE I STUDENTS ATTENDING NON-TITLE I SCHOOLS (N=240), GRADE 5.

Models			RSQ				
Full		Restricted	Full	Restricted	df	F	p
1	vs	2	.7461	.7459	2, 402	0.099	0.9050
2	vs	3	.7459	.7606	1, 404	0.000	1.0000
3	vs	4	.7606	.7614	2, 405	0.000	1.0000
4	vs	5	.7614	.7592	2, 407	1.800	0.1645

Figure D-56. MODELS COMPARING HIGH ACHIEVERS AT SCHOOLWIDE PROJECTS N=16) WITH HIGH ACHIEVERS FROM TITLE I SCHOOLS (FROM TRADITIONAL TITLE I ATTENDANCE AREAS) (N=157) AND HIGH-ACHIEVING FORMER TITLE I STUDENTS ATTENDING NON-TITLE I SCHOOLS (N=238), GRADE 6.

Group*	N	Pretest Mean	Predicted Posttest	Predicted Posttest for Common Pretest**
SWP	64	55.55	2.54	2.34
TI	380	59.35	2.40	2.36
FTI	276	58.63	2.42	2.43

* SWP=high-achieving students at Allison and Becker schoolwide projects.
TI =high achievers in Title I schools from traditional Title I areas.
FTI=high achievers in non-Title I schools from traditional Title I areas.
** Overall pretest mean=58.7333.

Figure D-57. EXPECTED POSTTEST PERFORMANCE FOR HIGH-ACHIEVING STUDENTS AT SCHOOLWIDE PROJECTS, HIGH ACHIEVERS FROM TITLE I SCHOOLS (FROM TRADITIONAL TITLE I ATTENDANCE AREAS), AND HIGH ACHIEVERS FROM FORMER TITLE I SCHOOLS NOT ATTENDING A NON-TITLE I SCHOOL, GRADE 1. MODEL 2 USED TO OBTAIN POSTTEST SCORES.

Group*	N	Pretest Mean	Predicted Posttest	Gain	Gain With Common Pretest**
SWP	73	2.11	2.85	.74	.80
TI	284	2.23	3.02	.79	.79
FTI	361	2.48	3.26	.78	.80

* For definitions see Figure D-57.
** Overall pretest mean=2.3422.

Figure D-58. EXPECTED POSTTEST PERFORMANCE FOR HIGH-ACHIEVING STUDENTS AT SCHOOLWIDE PROJECTS, HIGH ACHIEVERS FROM TITLE I SCHOOLS (FROM TRADITIONAL TITLE I ATTENDANCE AREAS), AND HIGH ACHIEVERS FROM FORMER TITLE I SCHOOLS NOT ATTENDING A NON-TITLE I SCHOOL, GRADE 2. MODEL 3 USED TO OBTAIN POSTTEST SCORES.

Group*	N	Pretest Mean	Predicted Posttest	Gain	Gain With Common Pretest**
SWP	47	3.13	4.27	1.14	1.14
TI	268	3.37	4.22	.85	.85
FTI	308	3.42	4.24	.82	.82

* For definitions see Figure D-57.
** Overall pretest mean=3.3754.

Figure D-59. EXPECTED POSTTEST PERFORMANCE FOR ~~LOW~~ HIGH-ACHIEVING STUDENTS AT SCHOOLWIDE PROJECTS, HIGH ACHIEVERS FROM TITLE I SCHOOLS (FROM TRADITIONAL TITLE I ATTENDANCE AREAS), AND HIGH ACHIEVERS FROM FORMER TITLE I SCHOOLS NOW ATTENDING A NON-TITLE I SCHOOL, GRADE 3. MODEL 2 USED TO OBTAIN POSTTEST SCORES.

Group*	N	Pretest Mean	Predicted Posttest	Gain
SWP	13	5.38	6.91	1.54
TI	147	5.81	6.89	1.09
FTI	240	5.68	6.73	1.05

* For definitions see Figure D-57.

Figure D-60. EXPECTED GAIN FOR ~~LOW~~ HIGH-ACHIEVING SCHOOLWIDE PROJECT STUDENTS, TITLE I STUDENTS FROM TRADITIONAL TITLE I ATTENDANCE AREAS, FORMER TITLE I STUDENTS SERVED BY SCE, AND FORMER TITLE I STUDENTS NOT SERVED BY SCE, GRADE 5. MODEL 4 USED TO OBTAIN POSTTEST SCORES.

Models			RSQ				
Full		Restricted	Full	Restricted	df	F	p
1	vs	2	.1123	.0980	1, 70	1.131	0.2914
2	vs	3	.0980	.0656	1, 71	2.555	0.1105
3	vs	4	.0656	.0588	1, 72	0.518	0.4808
4	vs	5	.0588	.0558	1, 73	0.234	0.6356

Figure D-61. MODELS COMPARING RAINBOW KIT PARTICIPANTS (N=35) WITH CONTROLS (N=41), GRADE 2.

Models			RSQ				
Full		Restricted	Full	Restricted	df	F	p
1	vs	2	.3827	.3766	1, 79	0.773	.3859
2	vs	3	.3766	.3498	1, 80	3.445	.0637
3	vs	4	.3498	.3496	1, 81	0.028	.8628
4	vs	5	.3496	.3386	1, 82	1.387	.2406

Figure D-62. MODELS COMPARING RAINBOW KIT PARTICIPANTS (N=45) WITH CONTROLS (N=40), GRADE 3.

Models			RSQ				
Full		Restricted	Full	Restricted	df	F	p
1	vs	2	.5588	.5591	1, 95	0.000	1.0000
2	vs	3	.5591	.5605	1, 96	0.000	1.0000
3	vs	4	.5605	.5606	1, 97	0.000	1.0000
4	vs	5	.5606	.5603	1, 98	0.069	0.7891

Figure D-63. MODELS COMPARING RAINBOW KIT PARTICIPANTS (N=57) WITH CONTROLS (N=44), GRADE 4.

Models			RSQ				
Full		Restricted	Full	Restricted	df	F	p
1	vs	2	.5527	.5546	1, 84	0.000	1.0000
2	vs	3	.5546	.5551	1, 85	0.000	1.0000
3	vs	4	.5551	.5496	1, 86	1.067	0.3051
4	vs	5	.5496	.5474	1, 87	0.426	0.5229

Figure D-64. MODELS COMPARING RAINBOW KIT PARTICIPANTS (N=53) WITH CONTROLS (N=37), GRADE 5.

Models			RSQ				
Full		Restricted	Full	Restricted	df	F	p
1	vs	2	.4863	.4879	1, 73	0.000	1.0000
2	vs	3	.4879	.4941	1, 74	0.000	1.0000
3	vs	4	.4941	.4835	1, 75	1.578	0.2105
4	vs	5	.4835	.4678	1, 76	2.304	0.1293

Figure D-65. MODELS COMPARING RAINBOW KIT PARTICIPANTS (N=33) WITH CONTROLS (N=46), GRADE 6.

Point of Measurement	Posttest for Title I Students Predicted From... Title I Equation GE	%ile	NCE	Comparison Group Equation GE	%ile	NCE	NCE Gain
Pretest Mean (1.08)	1.88	17.2	30.1	1.85	16.0	29.1	1.0
Cutoff Score (1.50)	2.09	22.8	34.3	2.31	30.2	39.1	-4.8

Comparison Group Equation: Posttest = .6795 + 1.0875 (Pretest)

Title I Group Equation: Posttest = 1.3454 + .495 (Pretest)

Figure D-66. TITLE I MODEL C ANALYSIS RESULTS FOR GRADE 2. (Title I N=312, Comparison N=633)

Group	N	Pretest Mean	Pretest S.D	Posttest Mean	Posttest S.D	Correlation Pre-Post
Title I	312	1.08	0.33	1.88 (30.1)	0.65	.25
Comparison	633	2.49	0.66	3.39	0.94	.76

Figure D-67. PRETEST AND POSTTEST MEAN, STANDARD DEVIATION, AND CORRELATION, READING TOTAL GRADE EQUIVALENT, GRADE 2. Number in parentheses is Title I posttest NCE score.

Point of Measurement	Posttest for Title I Students Predicted From... Title I Equation GE	%ile	NCE	Comparison Group Equation GE	%ile	NCE	NCE Gain
Pretest Mean (1.75)	2.66	19.2	31.7	2.76	21.2	33.2	-1.5
Cutoff Score (2.50)	3.25	24.0	41.3	3.44	38.8	44.0	-2.7

Comparison Group Equation: Posttest = 1.1888 + .9005 (Pretest)

Title I Group Equation: Posttest = 1.2859 + .7863 (Pretest)

Figure D-68. TITLE I MODEL C ANALYSIS RESULTS FOR GRADE 3. (Title I N=357, Comparison N=658)

Group	N	Pretest Mean	Pretest S.D.	Posttest Mean	Posttest S.D.	Correlation Pre-Post
Title I	357	1.75	0.45	2.66 (31.7)	0.67	.53
Comparison	658	3.66	0.76	4.48	0.93	.73

Figure D-69. PRETEST AND POSTTEST MEAN, STANDARD DEVIATION, AND CORRELATION, READING TOTAL GRADE EQUIVALENT, GRADE 3. Number in parentheses is Title I posttest NCE score.

Point of Measurement	Posttest for Title I Students Predicted From... Title I Equation GE	%ile	NCE	Comparison Group Equation GE	%ile	NCE	NCE Gain
Pretest Mean (2.63)	3.47	15.8	28.9	3.24	12.4	25.7	3.2
Cutoff Score (3.50)	4.35	36.5	42.7	4.35	36.5	42.7	0.0

Comparison Group Equation: Posttest = -.1203 + 1.278 (Pretest)

Title I Group Equation: Posttest = .7833 + 1.02 (Pretest)

Figure D-70. TITLE I MODEL C ANALYSIS RESULTS FOR GRADE 4. (Title I N=345, Comparison N=445).

Group	N	Pretest Mean	Pretest S.D.	Posttest Mean	Posttest S.D.	Correlation Pre-Post
Title I	345	2.63	0.57	3.46 (28.9)	0.85	.69
Comparison	445	4.68	0.72	5.86	1.17	.79

Figure D-71. PRETEST AND POSTTEST MEAN, STANDARD DEVIATION, AND CORRELATION, READING TOTAL GRADE EQUIVALENT, GRADE 4. Number in parentheses is Title I posttest NCE score.

Point of Measurement	Posttest for Title I Students Predicted From... Title I Equation GE	%ile	NCE	Comparison Group Equation GE	%ile	NCE	NCE Gain
Pretest Mean (3.33)	4.27	15.8	28.9	4.19	14.9	28.1	0.8
Cutoff Score (4.50)	5.53	41.6	45.5	5.49	40.8	45.1	0.4

Comparison Group Equation: Posttest = .4935 + 1.1111 (Pretest)

Title I Group Equation: Posttest = .6941 + 1.0741 (Pretest)

Figure D-72. TITLE I MODEL C ANALYSIS RESULTS FOR GRADE 5. (Title I N=318, Comparison Group N=442).

Group	N	Pretest Mean	Pretest S.D.	Posttest Mean	Posttest S.D.	Correlation Pre-Post
Title I	318	3.33	0.74	4.27 (15.8)	1.03	.78
Comparison	442	6.17	1.04	7.35	1.34	.87

Figure D-73. PRETEST AND POSTTEST MEAN, STANDARD DEVIATION, AND CORRELATION, READING TOTAL GRADE EQUIVALENT, GRADE 5. Number in parentheses is Title I posttest NCE score.

Point of Measurement	Posttest for Title I Students Predicted From... Title I Equation GE	%ile	NCE	Comparison Group Equation GE	%ile	NCE	NCE Gain
Pretest Mean (4.08)	4.99	14.9	28.1	5.03	15.3	28.4	-0.3
Cutoff Score (5.45)	6.21	37.2	43.1	6.49	42.1	45.8	-2.7

Comparison Group Equation: Posttest = .6911 + 1.0646 (Pretest)

Title I Group Equation: Posttest = 1.3552 + .8917 (Pretest)

Figure D-74. TITLE I MODEL C ANALYSIS RESULTS FOR GRADE 6. (Title I N=288, Comparison Group N=461).

Group	N	Pretest Mean	Pretest S.D.	Posttest Mean	Posttest S.D.	Correlation Pre-Post
Title I	288	4.08	0.87	4.99 (14.9)	1.05	.74
Comparison	461	7.23	1.23	8.39	1.49	.88

Figure D-75. PRETEST AND POSTTEST MEAN, STANDARD DEVIATION, AND CORRELATION, READING TOTAL GRADE EQUIVALENT, GRADE 6. Number in parentheses is Title I posttest NCE score.

Models			RSQ				
Full		Restricted	Full	Restricted	df	F	p
1	vs	2	.6957	.6952	1, 939	1.793	0.177
2	vs	3	.6952	.6953	1, 940	0.000	1.000
3	vs	4	.6953	.6860	1, 941	28.531	0.000
4	vs	5	.6860	.6857	1, 942	1.005	0.318

Figure D-76. MODELS COMPARING TITLE I (N=312) AND COMPARISON GROUP (N=633), GRADE 2--MODEL C.

Models			RSQ				
Full		Restricted	Full	Restricted	df	F	p
1	vs	2	.7533	.7518	1, 1009	6.261	0.012
2	vs	3	.7518	.7472	1, 1010	18.621	<0.001
3	vs	4	.7472	.7468	1, 1011	1.906	0.164
4	vs	5	.7468	.7457	1, 1012	4.081	0.041

Figure D-77. MODELS COMPARING TITLE I (N=357) AND NON-TITLE I (N=658), GRADE 3--MODEL C.

Models			RSQ				
Full		Restricted	Full	Restricted	df	F	p
1	vs	2	.8177	.8179	1, 784	0.000	1.000
2	vs	3	.8179	.8170	1, 785	4.162	0.039
3	vs	4	.8170	.8145	1, 786	10.695	0.002
4	vs	5	.8145	.8144	1, 787	0.320	0.579

Figure D-78. MODELS COMPARING TITLE I (N=345) AND NON-TITLE I (N=445), GRADE 4--MODEL C.

80.71

Models			RSQ				
Full		Restricted	Full	Restricted	df	F	p
1	vs	2	.8843	.8836	1, 754	4.625	0.030
2	vs	3	.8836	.8848	1, 755	0.000	1.000
3	vs	4	.8848	.8848	1, 756	0.000	1.000
4	vs	5	.8848	.8847	1, 757	0.312	0.584

Figure D-79. MODELS COMPARING TITLE I (N=318) AND NON-TITLE I (N=442), GRADE 5--MODEL C.

Models			RSQ				
Full		Restricted	Full	Restricted	df	F	p
1	vs	2	.8850	.8833	1, 743	10.894	0.001
2	vs	3	.8833	.8872	1, 744	0.000	1.000
3	vs	4	.8872	.8858	1, 745	9.098	0.003
4	vs	5	.8858	.8853	1, 746	3.369	0.063

Figure D-80. MODELS COMPARING TITLE I (N=288) AND NON-TITLE I (N=461), GRADE 6--MODEL C.

MODELS USED FOR EVALUATION QUESTIONS D1-6, D1-10, D2-3, AND D3-1 AND FOR INFORMATION NEED I20.

Model 1: $Y = a_0U + a_1X^{(3)} + a_3X^{(4)} + a_4X^{(6)} + a_5X^{(7)} + a_6X^{(8)} + E$

Model 2: $Y = a_7U + a_8X^{(3)} + a_9X^{(4)} + a_{10}X^{(5)} + a_{11}X^{(8)} + E$

Model 3: $Y = a_{12}U + a_{13}X^{(3)} + a_{14}X^{(4)} + a_{15}X^{(8)} + E$

Model 4: $Y = a_{16}U + a_{17}X^{(2)} + a_{18}X^{(8)} + E$

Model 5: $Y = a_{19}U + a_{20}X^{(2)} + E$

Where,

Y = posttest

U = unit vector

$X^{(2)}$ = pretest

$X^{(3)}$ = pretest if a member of Group 1; 0, otherwise

$X^{(4)}$ = pretest if a member of Group 2; 0 otherwise

$X^{(5)}$ = $X^{(2)}$ squared

$X^{(6)}$ = $X^{(3)}$ squared

$X^{(7)}$ = $X^{(4)}$ squared

$X^{(8)}$ = 1 if a member of Group 1; 0, otherwise

REGRESSION ANALYSES COMPARING TITLE I AND FORMER TITLE I STUDENTS AT GRADES 1-6.

ANALYSIS 2 -- TITLE I VS FORMER TITLE I -- GRADE 1 0860

80.71

PARAMETERS
COL 1- 5 = 8
COL 6-10 = 394
COL 11-15 = 5
COL 16-20 = 4
COL 21-25 = 1

DATA FORMAT = (DUMMY) 0880

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8
	1.3155	34.4975	25.1117	9.3858	1255.1726	896.7716	358.4010	0.7437

SIGMAS	1	2	3	4	5	6	7	8
	0.5538	8.0683	16.3149	16.4410	532.8182	695.7255	665.3337	0.4366

R MATRIX	1	2	3	4	5	6	7	8
1	1.0000	0.3728	-0.0683	0.2508	0.3691	0.0243	0.2702	-0.2124
2	0.3728	1.0000	0.2316	0.2609	0.9891	0.4426	0.3293	-0.1540
3	-0.0683	0.2316	1.0000	-0.8787	0.2187	0.9604	-0.8291	0.9037
4	0.2508	0.2609	-0.8787	1.0000	0.2683	-0.7358	0.9844	-0.9723
5	0.3691	0.9891	0.2187	0.2683	1.0000	0.4387	0.3421	-0.1575
6	0.0243	0.4426	0.9604	-0.7358	0.4387	1.0000	-0.6943	0.7568
7	0.2702	0.3293	-0.8291	0.9844	0.3421	-0.6943	1.0000	-0.9175
8	-0.2124	-0.1540	0.9037	-0.9723	-0.1575	0.7568	-0.9175	1.0000

D-48

80.71

MODEL 1 M1 CRITERION = 1

PREDICTORS = 3= 4 6= 8

R = 0.4027 RSQ = 0.1622 77 ITERATIONS.

V	BETA	B
3	0.1570	0.0053
4	0.0	0.0
6	0.3312	0.0003
7	0.4837	0.0004
8	-0.1610	-0.2042
REG. CONST. =		0.9528

MODEL 2 M2 CRITERION = 1

PREDICTORS = 3= 5 8= 8

R = 0.4053 RSQ = 0.1643 97 ITERATIONS.

V	BETA	B
3	0.6588	0.0224
4	0.7926	0.0267
5	0.0079	0.0000
8	-0.0359	-0.0455
REG. CONST. =		0.9269

MODEL 3 M3 CRITERION = 1

PREDICTORS = 3= 4 8= 8

R = 0.4053 RSQ = 0.1642 2 ITERATIONS.

V	BETA	B
3	0.6669	0.0226
4	0.8367	0.0282
8	0.0	0.0
REG. CONST. =		0.4825

MODEL 4 M4 CRITERION = 1

PREDICTORS = 2= 2 8= 8

R = 0.4044 RSQ = 0.1636 2 ITERATIONS.

V	BETA	B
2	0.3483	0.0239
8	-0.1588	-0.2014
REG. CONST. =		0.6405

```
MODEL  5 M5  CRITERION =  1

PREDICTORS =  2= 2

R = 0.3728     RSQ = 0.1390          5 ITERATIONS.

  V      BETA       B
  2    0.3728    0.0256
REG. CONST. =    0.4328


F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =    0.1622      MODEL  1
RSQ REDUCED = 0.1643      MODEL  2
DIFFERENCE = -0.0021
DFN =  1.     DFD =  388.     F-RATIO =   0.0      P = 1.0000


F-TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =    0.1643      MODEL  2
RSQ REDUCED = 0.1642      MODEL  3
DIFFERENCE =  0.0000
DFN =  1.     DFD =  389.     F-RATIO =   0.014    P = 0.9003


F-TEST  3   MODEL 3 VS MODEL 4
RSQ FULL =    0.1642      MODEL  3
RSQ REDUCED = 0.1636      MODEL  4
DIFFERENCE =  0.0007
DFN =  1.     DFD =  390.     F-RATIO =   0.311    P = 0.5844


F-TEST  4   MODEL 4 VS MODEL 5
RSQ FULL =    0.1636      MODEL  4
RSQ REDUCED = 0.1390      MODEL  5
DIFFERENCE =  0.0246
DFN =  1.     DFD =  391.     F-RATIO =  11.504    P = 0.0011
```

ANALYSIS 2 -- TITLE I VS FORMER TITLE I -- GRADE 2 0980

80.71

PARAMETERS
COL 1- 5 = 8
COL 6-10 = 310
COL 11-15 = 5
COL 16-20 = 4
COL 21-25 = 1

DATA FORMAT = (DUMMY) 1000

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8
	1.8635	1.0594	0.7800	0.2794	1.2541	0.9242	0.3299	0.7226

SIGMAS	1	2	3	4	5	6	7	8
	0.6005	0.3632	0.5620	0.5019	0.6430	0.7821	0.6415	0.4477

R MATRIX	1	2	3	4	5	6	7	8
1	1.0000	0.1827	0.0867	0.0351	0.2049	0.1244	0.0537	-0.0076
2	0.1827	1.0000	0.4797	0.1865	0.9576	0.5831	0.2489	0.0894
3	0.0867	0.4797	1.0000	-0.7726	0.4607	0.9643	-0.7138	0.8600
4	0.0351	0.1865	-0.7726	1.0000	0.1771	-0.6577	0.9793	-0.8983
5	0.2049	0.9576	0.4607	0.1771	1.0000	0.6100	0.2585	0.0625
6	0.1244	0.5831	0.9643	-0.6577	0.6100	1.0000	-0.6077	0.7322
7	0.0537	0.2489	-0.7138	0.9793	0.2585	-0.6077	1.0000	-0.8300
8	-0.0076	0.0894	0.8600	-0.8983	0.0625	0.7322	-0.8300	1.0000

D-51

MODEL 1 M1 CRITERION = 1

PREDICTORS = 3= 4 6= 8

R = 0.2161 RSQ = 0.0467 55 ITERATIONS.

V	BETA	B
3	-0.0340	-0.0364
4	-0.3494	-0.4181
6	0.3079	0.2364
7	0.4149	0.3883
8	-0.1753	-0.2351
REG. CONST. =		1.8320

MODEL 2 M2 CRITERION = 1

PREDICTORS = 3= 5 8= 8

R = 0.2137 RSQ = 0.0457 27 ITERATIONS.

V	BETA	B
3	-0.0657	-0.0703
4	-0.1881	-0.2251
5	0.2778	0.2594
8	-0.1405	-0.1884
REG. CONST. =		1.7920

MODEL 3 M3 CRITERION = 1

PREDICTORS = 3= 4 8= 8

R = 0.1938 RSQ = 0.0376 23 ITERATIONS.

V	BETA	B
3	0.3618	0.3867
4	0.1320	0.1580
8	-0.2033	-0.2727
REG. CONST. =		1.7148

MODEL 4 M4 CRITERION = 1

PREDICTORS = 2= 2 8= 8

R = 0.1842 RSQ = 0.0339 2 ITERATIONS.

V	BETA	B
2	0.1848	0.3056
8	-0.0241	-0.0324
REG. CONST. =		1.5632

MODEL 5 M5 CRITERION = 1

PREDICTORS = 2- 2

R = 0.1827 RSQ = 0.0334 1 ITERATIONS.

V	BETA	B
2	0.1827	0.3021
REG. CONST. =		1.5436

F-TEST 1 MODEL 1 VS MODEL 2
RSQ FULL = 0.0467 MODEL 1
RSQ REDUCED = 0.0457 MODEL 2
DIFFERENCE = 0.0010
DFN = 1. DFD = 304. F-RATIO = 0.327 P = 0.5749

F-TEST 2 MODEL 2 VS MODEL 3
RSQ FULL = 0.0457 MODEL 2
RSQ REDUCED = 0.0376 MODEL 3
DIFFERENCE = 0.0081
DFN = 1. DFD = 305. F-RATIO = 2.596 P = 0.1041

F-TEST 3 MODEL 3 VS MODEL 4
RSQ FULL = 0.0376 MODEL 3
RSQ REDUCED = 0.0339 MODEL 4
DIFFERENCE = 0.0036
DFN = 1. DFD = 306. F-RATIO = 1.149 P = 0.2844

F-TEST 4 MODEL 4 VS MODEL 5
RSQ FULL = 0.0339 MODEL 4
RSQ REDUCED = 0.0334 MODEL 5
DIFFERENCE = 0.0006
DFN = 1. DFD = 307. F-RATIO = 0.184 P = 0.6725

ANALYSIS 2 -- TITLE I VS FORMER TITLE I -- GRADE 3 1100

80.71

PARAMETERS
COL 1- 5 = 8
COL 6-10 = 306
COL 11-15 = 5
COL 16-20 = 4
COL 21-25 = 1

DATA FORMAT = (DUMMY) 1120

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8
	2.6101	1.7261	1.3562	0.3699	3.1703	2.4861	0.6842	0.7876

SIGMAS	1	2	3	4	5	6	7	8
	0.6653	0.4368	0.8042	0.7399	1.4843	1.8488	1.4789	0.4090

R MATRIX	1	2	3	4	5	6	7	8
1	1.0000	0.4906	0.1848	0.0887	0.4954	0.2996	0.1226	-0.0389
2	0.4906	1.0000	0.4130	0.1414	0.9908	0.6177	0.2221	-0.0183
3	0.1848	0.4130	1.0000	-0.8432	0.4109	0.9540	-0.7802	0.8758
4	0.0887	0.1414	-0.8432	1.0000	0.1382	-0.6724	0.9792	-0.9628
5	0.4954	0.9908	0.4109	0.1382	1.0000	0.6257	0.2214	-0.0178
6	0.2996	0.6177	0.9540	-0.6724	0.6257	1.0000	-0.6222	0.6983
7	0.1226	0.2221	-0.7802	0.9792	0.2214	-0.6222	1.0000	-0.8909
8	-0.0389	-0.0183	0.8758	-0.9628	-0.0178	0.6983	-0.8909	1.0000

MODEL 1 M1 CRITERION = 1

PREDICTORS = 3- 4 6- 8

R = 0.4974 RSQ = 0.2474 20 ITERATIONS.

V	BETA	B
3	0.0	0.0
4	0.0	0.0
6	0.6345	0.2283
7	0.4397	0.1978
8	-0.0872	-0.1418
REG. CONST. =		2.0188

MODEL 2 M2 CRITERION = 1

PREDICTORS = 3- 5 8- 8

R = 0.4976 RSQ = 0.2476 12 ITERATIONS.

V	BETA	B
3	0.0	0.0
4	-0.1436	-0.1292
5	0.5122	0.2296
8	-0.1694	-0.2755
REG. CONST. =		2.1470

MODEL 3 M3 CRITERION = 1

PREDICTORS = 3- 4 8- 8

R = 0.4929 RSQ = 0.2429 43 ITERATIONS.

V	BETA	B
3	0.9290	0.7685
4	0.7430	0.6681
8	-0.1373	-0.2232
REG. CONST. =		1.4965

MODEL 4 M4 CRITERION = 1

PREDICTORS = 2- 2 8- 8

R = 0.4915 RSQ = 0.2416 2 ITERATIONS.

V	BETA	B
2	0.4900	0.7464
8	-0.0300	-0.0487
REG. CONST. =		1.3600

```
MODEL  5 M5  CRITERION =  1

PREDICTORS =  2= 2

R = 0.4906      RSQ = 0.2407          1 ITERATIONS.

  V       BETA        B
  2     0.4906    0.7473
REG. CONST. =     1.3202

F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =     0.2474      MODEL  1
RSQ REDUCED = 0.2476       MODEL  2
DIFFERENCE = -0.0002
DFN =  1.     DFD =  300.      F-RATIO =    0.0      P = 1.0000

F-TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =     0.2476      MODEL  2
RSQ REDUCED = 0.2429       MODEL  3
DIFFERENCE =   0.0047
DFN =  1.      DFD =  301.      F-RATIO =    1.864    P = 0.1696

F-TEST  3   MODEL 3 VS MODEL 4
RSQ FULL =     0.2429      MODEL  3
RSQ REDUCED = 0.2416       MODEL  4
DIFFERENCE =   0.0014
DFN =  1.      DFD =  302.      F-RATIO =    0.551    P = 0.4653

F-TEST  4   MODEL 4 VS MODEL 5
RSQ FULL =     0.2416      MODEL  4
RSQ REDUCED = 0.2407       MODEL  5
DIFFERENCE =   0.0009
DFN =  1.      DFD =  303.      F-RATIO =    0.358    P = 0.5570
```

ANALYSIS 2 -- TITLE I VS FORMER TITLE I -- GRADE 4 1220

80.71

PARAMETERS
COL 1- 5 = 8
COL 6-10 = 372
COL 11-15 = 5
COL 16-20 = 4
COL 21-25 = 1

DATA FORMAT = (DUMMY)

1240

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8
	3.3355	2.5970	1.8745	0.7226	7.0422	5.1691	1.8732	0.7097

SIGMAS.	1	2	3	4	5	6	7	8
	0.8510	0.5455	1.2866	1.1623	2.7960	4.0797	3.2464	0.4539

R MATRIX	1	2	3	4	5	6	7	8
1	1.0000	0.6723	0.3267	-0.0462	0.6774	0.4359	0.0356	0.1311
2	0.6723	1.0000	0.4288	-0.0054	0.9909	0.5996	0.1000	0.1268
3	0.3267	-0.4288	1.0000	-0.9057	0.4332	0.9658	-0.8406	0.9318
4	-0.0462	-0.0054	-0.9057	1.0000	-0.0144	-0.7876	0.9774	-0.9719
5	0.6774	0.9909	0.4332	-0.0144	1.0000	0.6103	0.0943	0.1350
6	0.4359	0.5996	0.9658	-0.7876	0.6103	1.0000	-0.7311	0.8104
7	0.0356	0.1000	-0.8406	0.9774	0.0943	-0.7311	1.0000	-0.9021
8	0.1311	0.1268	0.9318	-0.9719	0.1350	0.8104	-0.9021	1.0000

D-57

MODEL 1 M1 CRITERION = 1

PREDICTORS = 3= 4 6= 8

R = 0.6791 RSQ = 0.4612 37 ITERATIONS.

V	BETA	B
3	0.0501	0.0331
4	0.0	0.0
6	0.9331	0.1946
7	0.8185	0.2146
8	0.0682	0.1278

REG. CONST. = 1.7747

MODEL 2 M2 CRITERION = 1

PREDICTORS = 3= 5 8= 8

R = 0.6786 RSQ = 0.4604 2 ITERATIONS.

V	BETA	B
3	0.0	0.0
4	0.0	0.0
5	0.6719	0.2045
8	0.0403	0.0756

REG. CONST. = 1.8416

MODEL 3 M3 CRITERION = 1

PREDICTORS = 3= 4 8= 8

R = 0.6738 RSQ = 0.4540 20 ITERATIONS.

V	BETA	B
3	1.5751	1.0418
4	1.4154	1.0363
8	0.0360	0.0674

REG. CONST. = 0.5861

MODEL 4 M4 CRITERION = 1

PREDICTORS = 2= 2 8= 8

R = 0.6738 RSQ = 0.4541 2 ITERATIONS.

V	BETA	B
2	0.6664	1.0395
8	0.0466	0.0873

REG. CONST. = 0.5739

```
MODEL  5 MS  CRITERION =  1

PREDICTORS =  2= 2

R = 0.6723      RSQ = 0.4519          1 ITERATIONS.

  V       BETA        B
  2     0.6723     1.0487
REG. CONST. =      0.6119


F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =      0.4612      MODEL  1
RSQ REDUCED =  0.4604       MODEL  2
DIFFERENCE =   0.0007
DFN =  1.       DFD =  366.      F-RATIO =    0.501   P = 0.4867


F-TEST  2    MODEL 2 VS MODEL 3
RSQ FULL =      0.4604      MODEL  2
RSQ REDUCED =  0.4540       MODEL  3
DIFFERENCE =   0.0064
DFN =  1.       DFD =  367.      F-RATIO =    4.372    P = 0.0349


F-TEST  3    MODEL 3 VS MODEL 4
RSQ FULL =      0.4540      MODEL  3
RSQ REDUCED =  0.4541       MODEL  4
DIFFERENCE =  -0.0001
DFN =  1.       DFD =  368.      F-RATIO =    0.0      P = 1.0000


F-TEST  4    MODEL 4 VS MODEL 5
RSQ FULL =      0.4541      MODEL  4
RSQ REDUCED =  0.4519       MODEL  5
DIFFERENCE =   0.0021
DFN =  1.       DFD =  369.      F-RATIO =    1.442    P = 0.2285
```

ANALYSIS 2 -- TITLE I VS FORMER TITLE I -- GRADE 5 1340

PARAMETERS
COL 1- 5 = 8
COL 6-10 = 366
COL 11-15 = 5
COL 16-20 = 4
COL 21-25 = 1

DATA FORMAT = (DUMMY) 1360

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8
	4.1123	3.2432	2.1639	1.0792	11.0470	7.5355	3.5116	0.6530

SIGMAS	1	2	3	4	5	6	7	8
	0.5677	0.7273	1.6890	1.5319	4.5299	6.6777	5.3713	0.4760

R MATRIX	1	2	3	4	5	6	7	8
1	1.0000	0.7656	0.3603	-0.0338	0.7767	0.4870	0.0496	0.1398
2	0.7656	1.0000	0.4213	0.0103	0.9892	0.5766	0.1174	0.1332
3	0.3603	0.4213	1.0000	-0.9026	0.4357	0.9693	-0.8376	0.9339
4	-0.0338	0.0103	-0.9026	1.0000	-0.0108	-0.7950	0.9792	-0.9664
5	0.7767	0.9892	0.4357	-0.0108	1.0000	0.5994	0.0982	0.1492
6	0.4870	0.5766	0.9693	-0.7950	0.5994	1.0000	-0.7377	0.8226
7	0.0496	0.1174	-0.8376	0.9792	0.0982	-0.7377	1.0000	-0.8969
8	0.1398	0.1332	0.9339	-0.9664	0.1492	0.8226	-0.8969	1.0000

89.71

D-60

MODEL 1 M1 CRITERION = 1

PREDICTORS = 3= 4 6= 8

R = 0.7772 RSQ = 0.6040 2 ITERATIONS.

V	BETA	B
3	0.0	0.0
4	0.0	0.0
6	1.1489	0.1665
7	0.8972	0.1616
8	0.0	0.0
REG. CONST. =		2.2901

MODEL 2 M2 CRITERION = 1

PREDICTORS = 3= 5 8= 8

R = 0.7771 RSQ = 0.6039 2 ITERATIONS.

V	BETA	B
3	0.0	0.0
4	-0.0254	-0.0160
5	0.7764	0.1659
8	0.0	0.0
REG. CONST. =		2.2973

MODEL 3 M3 CRITERION = 1

PREDICTORS = 3= 4 8= 8

R = 0.7668 RSQ = 0.5879 2 ITERATIONS.

V	BETA	B
3	1.7791	1.0193
4	1.5720	0.9930
8	0.0	0.0
REG. CONST. =		0.8349

MODEL 4 M4 CRITERION = 1

PREDICTORS = 2= 2 8= 8

R = 0.7666 RSQ = 0.5876 2 ITERATIONS.

V	BETA	B
2	0.7605	1.0119
8	0.0384	0.0781
REG. CONST. =		0.7794

```
MODEL  5 MS  CRITERION =  1

PREDICTORS =  2= 2

R = 0.7656     RSQ = 0.5862          1 ITERATIONS.

  V       BETA        B
  2     0.7656     1.0187
REG. CONST. =      0.8083


F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =      0.6040      MODEL  1
RSQ REDUCED =  0.6039      MODEL  2
DIFFERENCE =   0.0001
DFN =  1.      DFD =  360.      F-RATIO =    0.067    P = 0.7914


F-TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =      0.6039      MODEL  2
RSQ REDUCED =  0.5879      MODEL  3
DIFFERENCE =   0.0160
DFN =  1.      DFD =  361.      F-RATIO =   14.614    P = 0.0004


F-TEST  3   MODEL 3 VS MODEL 4
RSQ FULL =      0.5879      MODEL  3
RSQ REDUCED =  0.5876      MODEL  4
DIFFERENCE =   0.0003
DFN =  1.      DFD =  362.      F-RATIO =    0.251    P = 0.6229


F-TEST  4   MODEL 4 VS MODEL 5
RSQ FULL =      0.5876      MODEL  4
RSQ REDUCED =  0.5862      MODEL  5
DIFFERENCE =   0.0014
DFN =  1.      DFD =  363.      F-RATIO =    1.276    P = 0.2581
```

ANALYSIS 2 -- TITLE I VS FORMER TITLE I -- GRADE 6 1460

PARAMETERS
COL 1- 5 = 8
COL 6-10 = 338
COL 11-15 = 5
COL 16-20 = 4
COL 21-25 = 1

DATA FORMAT = (DUMMY) 1480

80.71

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8
	4.8769	4.0246	2.2364	1.7882	16.9018	9.4116	7.4902	0.5562

SIGMAS	1	2	3	4	5	6	7	8
	0.9967	0.8395	2.1000	2.0719	6.5152	9.8101	9.3380	0.4968

R MATRIX	1	2	3	4	5	6	7	8
1	1.0000	0.7644	0.1541	0.1535	0.7642	0.2746	0.2447	-0.0231
2	0.7644	1.0000	0.2332	0.1688	0.9907	0.3900	0.2815	-0.0051
3	0.1541	0.2332	1.0000	-0.9191	0.2405	0.9728	-0.8542	0.9512
4	0.1535	0.1688	-0.9191	1.0000	0.1577	-0.8280	0.9799	-0.9662
5	0.7642	0.9907	0.2405	0.1577	1.0000	0.4028	0.2746	0.0033
6	0.2746	0.3900	0.9728	-0.8280	0.4028	1.0000	-0.7695	0.8569
7	0.2447	0.2815	-0.8542	0.9799	0.2746	-0.7695	1.0000	-0.8980
8	-0.0231	-0.0051	0.9512	-0.9662	0.0033	0.8569	-0.8980	1.0000

MODEL 1 M1 CRITERION = 1

PREDICTORS = 3= 4 6= 8

R = 0.7654 RSQ = 0.5858 17 ITERATIONS.

V	BETA	B
3	0.0	0.0
4	0.0	0.0
6	1.1188	0.1137
7	1.1426	0.1219
8	0.0442	0.0886
REG. CONST. =		2.8445

MODEL 2 M2 CRITERION = 1

PREDICTORS = 3= 5 8= 8

R = 0.7658 RSQ = 0.5865 17 ITERATIONS.

V	BETA	B
3	0.0219	0.0104
4	0.2234	0.1074
5	0.7233	0.1106
8	0.1719	0.3449
REG. CONST. =		2.5995

MODEL 3 M3 CRITERION = 1

PREDICTORS = 3= 4 8= 8

R = 0.7651 RSQ = 0.5854 26 ITERATIONS.

V	BETA	B
3	1.8818	0.8931
4	1.9315	0.9291
8	0.0500	0.1003
REG. CONST. =		1.1625

MODEL 4 M4 CRITERION = 1

PREDICTORS = 2= 2 8= 8

R = 0.7647 RSQ = 0.5847 2 ITERATIONS.

V	BETA	B
2	0.7643	0.9074
8	-0.0192	-0.0385
REG. CONST. =		1.2464

80.71

MODEL 5 M5 CRITERION = 1

PREDICTORS = 2- 2

R = 0.7644 RSQ = 0.5844 1 ITERATIONS.

V	BETA	B
2	0.7644	0.9075
REG. CONST. =		1.2245

F-TEST 1 MODEL 1 VS MODEL 2
RSQ FULL = 0.5858 MODEL 1
RSQ REDUCED = 0.5865 MODEL 2
DIFFERENCE = -0.0007
DFN = 1. DFD = 332. F-RATIO = 0.0 P = 1.0000

F-TEST 2 MODEL 2 VS MODEL 3
RSQ FULL = 0.5865 MODEL 2
RSQ REDUCED = 0.5854 MODEL 3
DIFFERENCE = 0.0011
DFN = 1. DFD = 333. F-RATIO = 0.862 P = 0.3563

F-TEST 3 MODEL 3 VS MODEL 4
RSQ FULL = 0.5854 MODEL 3
RSQ REDUCED = 0.5847 MODEL 4
DIFFERENCE = 0.0007
DFN = 1. DFD = 334. F-RATIO = 0.529 P = 0.4745

F-TEST 4 MODEL 4 VS MODEL 5
RSQ FULL = 0.5847 MODEL 4
RSQ REDUCED = 0.5844 MODEL 5
DIFFERENCE = 0.0004
DFN = 1. DFD = 335. F-RATIO = 0.297 P = 0.5930

80.71

Attachment D-3
(Page 1 of 2)

AUSTIN INDEPENDENT SCHOOL DISTRICT
Office of Research and Evaluation

May 27, 1981

TO: Belia Greek and Ann Cunningham

FROM: David Doss

SUBJECT: Program Support and Achievement Gains

You may recall that I included in the Title I Evaluation Design a question which reads as follows:

> Was there a relationship between characteristics (cooperation in setting up the program, etc) of the principals of Title I schools, as perceived by the Title I reading coordinators, and the effectiveness of their Title I programs in terms of achievement gains?

The attached page lists the 22 Title I regular schools. Use the scale to indicate, overall, how much support each principal gave the Title I program at his/her school. I would like to have one common set of results in order to remove the problem of "rater bias."

Also, these ratings will be treated confidentially. They will not be reported in any way that the score for any one principal can be identified.

Approved: Freda M. Hollis
Director of Office of Research and Evaluation

DD:lfs

cc: Lee Laws
Oscar Cantu

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MEASURE OF PROGRAM SUPPORT

Using the definition and scale below, show how much support each principal gave the Title I Program. Work together to establish a consensus before giving the rating.

DEFINITION

Support for Campus Title I Program: knowledgeable about the Title I Reading Program, works with teachers to minimize scheduling problems, takes an active role in the planning and implementation of the school's Title I Program, is aware of the restrictions of the Title I Program, works actively to insure that the program is in compliance, does not impose unnecessary restrictions, etc.

SCALE

1	2	3	4	5
Very Low	Low	Average	High	Very High

School	Support
Blackshear	
Brown	
Bryker Woods	
Campbell	
Casis	
Dawson	
Govalle	
Harris	
Maplewood	
Mathews	
Metz	
Norman	
Oak Springs	
Ortega	
Ridgetop	
Rosedale	
Rosewood	
Sanchez	
Sims	
Walnut Creek	
Zavala	
Zilker	

MODELS USED TO DETERMINE THE RELATIONSHIP BETWEEN PRINCIPAL SUPPORT AND ACHIEVEMENT

Model 1: $$Y = a_0U + a_1X^{(3)} + a_2X^{(4)} + a_3X^{(5)} + a_4X^{(6)} + a_5X^{(7)} + a_6X^{(9)} + a_7X^{(10)} + a_8X^{(11)} + a_9X^{(12)} + a_{10}X^{(13)} + a_{11}X^{(14)} + a_{12}X^{(15)} + a_{13}X^{(16)} + a_{14}X^{(17)} + a_{15}X^{(18)} + E$$

Model 2: $$Y = a_{16}U + a_{17}X^{(3)} + a_{18}X^{(4)} + a_{19}X^{(5)} + a_{20}X^{(6)} + a_{21}X^{(7)} + a_{22}X^{(8)} + a_{23}X^{(14)} + a_{24}X^{(15)} + a_{25}X^{(16)} + a_{26}X^{(17)} + a_{27}X^{(18)} + E$$

Model 3: $$Y = a_{28}U + a_{29}X^{(2)} + a_{30}X^{(19)} + a_{31}X^{(20)} + E$$

Model 4: $$Y = a_{32}U + a_{33}X^{(2)} + E$$

Model 5: $$Y = a_{34}U + a_{35}X^{(2)} + a_{36}X^{(19)} + E$$

Where,

- Y = posttest
- U = unit vector
- $X^{(2)}$ = pretest
- $X^{(3)}$ = pretest if principal given a rating of 1; 0, otherwise
- $X^{(4)}$ = pretest if principal given a rating of 2; 0, otherwise
- $X^{(5)}$ = pretest if principal given a rating of 3; 0, otherwise
- $X^{(6)}$ = pretest if principal given a rating of 4; 0, otherwise
- $X^{(7)}$ = pretest if principal given a rating of 5; 0, otherwise
- $X^{(8)}$ = variable $X^{(2)}$ squared
- $X^{(9)}$ = variable $X^{(3)}$ squared
- $X^{(10)}$ = variable $X^{(4)}$ squared

$X^{(11)}$ = variable $X^{(5)}$ squared

$X^{(12)}$ = variable $X^{(6)}$ squared

$X^{(13)}$ = variable $X^{(7)}$ squared

$X^{(14)}$ = 1 if principal's rating was 1; 0, otherwise

$X^{(15)}$ = 1 if principal's rating was 2; 0, otherwise

$X^{(16)}$ = 1 if principal's rating was 3; 0, otherwise

$X^{(17)}$ = 1 if principal's rating was 4; 0, otherwise

$X^{(18)}$ = 1 if principal's rating was 5; 0, otherwise

$X^{(19)}$ = principal's rating

$X^{(20)}$ = direct product--pretest times principal's rating

The pretest is the student's April, 1980, ITBS Average Reading Grade Equivalent score except at grade 1 where MRT Pre-Reading Composite raw scores were used.

The ratings of the principals' support for the program were made using the following scale.

1 = Very Low, 2 = Low, 3 = Average, 4 = High, 5 = Very High

REGRESSION ANALYSES DETERMINING THE RELATIONSHIP BETWEEN PROGRAM SUPPORT AND ACHIEVEMENT GAINS AT GRADES 2-6.

*** OUTPUT FROM PROGRAM REGRAN ***

COOPERATION AND GAIN -- 4-80/4-81 ITBS AVG.READING TOTAL G.E. -- GRADE 2

PARAMETERS
COL 1- 5 = 20
COL 6-10 = 312
COL 11-15 = 5
COL 16-20 = 5
COL 21-25 = 1

DATA FORMAT = (OU4HY)

0710

80.71

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8	9	10
	1.8782	1.0763	0.0	0.2324	0.0817	0.6096	0.1526	1.2697	0.0	0.2695
MEANS	11	12	13	14	15	16	17	18	19	20
	0.1011	0.7243	0.1749	0.0	0.2179	0.0833	0.5513	0.1474	3.6282	3.9112
SIGMAS	1	2	3	4	5	6	7	8	9	10
	0.6518	0.3337	-0.0	0.4642	0.3072	0.5939	0.3894	0.6226	-0.0	0.5813
SIGMAS	11	12	13	14	15	16	17	18	19	20
	0.4073	0.7863	0.4897	-0.0	0.4129	0.2764	0.4974	0.3545	0.9820	1.6284

D-72

R MATRIX	1	2	3	4	5	6	7	8	9	10
1	1.0000	0.2535	***	-0.0397	0.0867	0.0979	0.0468	0.2633	***	-0.0166
2	0.2535	1.0000	0.0	0.1250	0.1277	0.3440	0.0826	0.9659	0.0	0.1915
3	***	0.0	1.0000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	-0.0397	0.1250	0.0	1.0000	-0.1332	-0.5139	-0.1961	0.1111	0.0	0.9805
5	0.0867	0.1277	0.0	-0.1332	1.0000	-0.2731	-0.1042	0.1401	0.0	-0.1233
6	0.0979	0.3440	0.0	-0.5139	-0.2731	1.0000	-0.4022	0.3310	0.0	-0.4759
7	0.0468	0.0826	0.0	-0.1961	-0.1042	-0.4022	1.0000	0.0801	0.0	-0.1816
8	0.2633	0.9659	0.0	0.1111	0.1401	0.3310	0.0801	1.0000	0.0	0.1888
9	***	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0000	0.0
10	-0.0166	0.1915	0.0	0.9805	-0.1233	-0.4759	-0.1816	0.1888	0.0	1.0000
11	0.1064	0.1604	0.0	-0.1242	0.9774	-0.2547	-0.0972	0.1885	0.0	-0.1150
12	0.1206	0.4454	0.0	-0.4611	-0.2451	0.9742	-0.3609	0.4559	0.0	-0.4270
13	0.0723	0.1521	0.0	-0.1788	-0.0950	-0.3667	0.9777	0.1584	0.0	-0.1656
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	-0.0705	-0.0160	0.0	0.9483	-0.1604	-0.5419	-0.2068	-0.0283	0.0	0.8781

16	0.0243	-0.0863	0.0	-0.1509	0.8824	-0.3095	-0.1181	-0.0276	0.0	-0.1379
17	0.0420	0.0981	0.0	-0.5549	-0.2949	0.9261	-0.4342	0.0785	0.0	-0.5138
18	0.0042	-0.0517	0.0	-0.2082	-0.1106	-0.4269	0.9421	-0.0556	0.0	-0.1928
19	0.0539	0.0191	0.0	-0.8300	-0.1702	0.3887	0.5473	0.0115	0.0	-0.7686
20	0.2252	0.7441	0.0	-0.4894	-0.0330	0.5303	0.4383	0.7212	0.0	-0.4222

R MATRIX

	11	12	13	14	15	16	17	18	19	20
1	0.1064	0.1206	0.0723	0.0	-0.0705	0.0243	0.0420	0.0042	0.0539	0.2252
2	0.1604	0.4454	0.1521	0.0	-0.0160	-0.0863	0.0981	-0.0517	0.0191	0.7441
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	-0.1242	-0.4611	-0.1788	0.0	0.9483	-0.1509	-0.5549	-0.2082	-0.8300	-0.4894
5	0.9774	-0.2451	-0.0950	0.0	-0.1404	0.8824	-0.2949	-0.1106	-0.1702	-0.0330
6	-0.2547	0.9742	-0.3667	0.0	-0.5419	-0.3095	0.9261	-0.4269	0.3887	0.5303
7	-0.0932	-0.3609	0.9777	0.0	-0.2068	-0.1181	-0.4342	0.9421	0.5473	0.4383
8	0.1885	0.4559	0.1584	0.0	-0.0283	-0.0276	0.0785	-0.0556	0.0115	0.7212
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	-0.1150	-0.4270	-0.1656	0.0	0.8781	-0.1398	-0.5138	-0.1928	-0.7686	-0.4222
11	1.0000	-0.2285	-0.0886	0.0	-0.1310	0.8229	-0.2750	-0.1032	-0.1587	-0.0054
12	-0.2285	1.0000	-0.3291	0.0	-0.4863	-0.2777	0.8311	-0.3831	0.3488	0.5879
13	-0.0886	-0.3291	1.0000	0.0	-0.1886	-0.1077	-0.3959	0.8590	0.4990	0.4784
14	0.0	0.0	0.0	1.0000	0.0	0.0	0.0	0.0	0.0	0.0
15	-0.1310	-0.4863	-0.1886	0.0	1.0000	-0.1592	-0.5851	-0.2195	-0.8753	-0.5767
16	0.8229	-0.2777	-0.1077	0.0	-0.1592	1.0000	-0.3342	-0.1254	-0.1929	-0.1794
17	-0.2750	0.8311	-0.3959	0.0	-0.5851	-0.3342	1.0000	-0.4609	0.4197	0.3485
18	-0.1032	-0.3831	0.8590	0.0	-0.2195	-0.1254	-0.4609	1.0000	0.5809	0.3225
19	-0.1587	0.3488	0.4990	0.0	-0.8753	-0.1929	0.4197	0.5809	1.0000	0.6518
20	-0.0054	0.5879	0.4784	0.0	-0.5767	-0.1794	0.3485	0.3225	0.6518	1.0000

80.71

D-73

MODEL 1 M1 CRITERION = 1

PREDICTORS = 4= 7 10=13 15=18

R = 0.2813 RSQ = 0.0792 34 ITERATIONS.

V	BETA	B
4	-0.0042	-0.0059
5	-0.0182	-0.0387
6	0.0190	0.0209
7	0.0	0.0
10	0.1926	0.2159
11	0.2907	0.4651
12	0.2694	0.2233
13	0.2519	0.3352
15	-0.0063	-0.0100
16	-0.0593	-0.1397
17	0.0328	0.0430
18	-0.0285	-0.0524
REG. CONST. =		1.5423

MODEL 2 M2 CRITERION = 1

PREDICTORS = 4= 8 15=18

R = 0.2791 RSQ = 0.0779 35 ITERATIONS.

V	BETA	B
4	-0.0996	-0.1399
5	0.0966	0.2048
6	-0.0597	-0.0656
7	0.0321	0.0537
8	0.2723	0.2851
15	0.0	0.0
16	-0.0851	-0.2006
17	0.0116	0.0151
18	-0.0501	-0.0921
REG. CONST. =		1.5857

MODEL 3 M3 CRITERION = 1

PREDICTORS = 2= 2 19=20

R = 0.2594 RSQ = 0.0673 6 ITERATIONS.

223

V	BETA	B
2	0.1843	0.3600
19	-0.0073	-0.0049
20	0.0931	0.0372
REG. CONST. =		1.3626

```
30.71
 MODEL   4 M4   CRITERION =   1

 PREDICTORS =   2= 2

 R = 0.2535      RSQ = 0.0642          1 ITERATIONS.

   V       BETA        B
   2     0.2535      0.4950
 REG. CONST. =       1.3454


 MODEL   5 M5   CRITERION =   1

 PREDICTORS =   2= 2 19=19

 R = 0.2582      RSQ = 0.0667          2 ITERATIONS.

   V       BETA        B
   2     0.2525      0.4932
  19    -0.0491      0.0326
 REG. CONST. =       1.2291


 F=TEST   1    MODEL 1 VS MODEL 2
 RSQ FULL =      0.0792      MODEL   1
 RSQ REDUCED =   0.0779      MODEL   2
 DIFFERENCE =    0.0013
 DFN =   3.      DFD =   300.      F=RATIO =    0.136    P = 0.9379


 F=TEST   2    MODEL 2 VS MODEL 3
 RSQ FULL =      0.0779      MODEL   2
 RSQ REDUCED =   0.0673      MODEL   3
 DIFFERENCE =    0.0106
 DFN =   5.      DFD =   303.      F=RATIO =    0.697    P = 0.6283


 F=TEST   3    MODEL 3 VS MODEL 4
 RSQ FULL =      0.0673      MODEL   3
 RSQ REDUCED =   0.0642      MODEL   4
 DIFFERENCE =    0.0031
 DFN =   2.      DFD =   308.      F=RATIO =    0.504    P = 0.6105


 F=TEST   4    MODEL 3 VS MODEL 5
 RSQ FULL =      0.0673      MODEL   3
 RSQ REDUCED =   0.0667      MODEL   5
 DIFFERENCE =    0.0006
 DFN =   1.      DFD =   308.      F=RATIO =    0.211    P = 0.6514


 F=TEST   5    MODEL 5 VS MODEL 4
 RSQ FULL =      0.0667      MODEL   5
 RSQ REDUCED =   0.0642      MODEL   4
 DIFFERENCE =    0.0024
 DFN =   1.      DFD =   309.      F=RATIO =    0.799    P = 0.3756
```

*** OUTPUT FROM PROGRAM REGRAN ***

COOPERATION AND GAIN -- 4-80/4-81 ITBS AVG.READING TOTAL G.E. -- GRADE 3

PARAMETERS
CCL 1- 5 = 20
CCL 6-10 = 357
CCL 11-15 = 5
CCL 16-20 = 5
CCL 21-25 = 1

DATA FORMAT = (DUMMY)

0710

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8	9	10
	2.6611	1.7490	0.0	0.4465	0.1933	0.9532	0.1560	3.2617	0.0	0.8141
MEANS	11	12	13	14	15	16	17	18	19	20
	0.3784	1.8095	0.2597	0.0	0.2633	0.1036	0.5322	0.1008	3.4706	6.0658
SIGMAS	1	2	3	4	5	6	7	8	9	10
	0.6662	0.4501	-0.0	0.7840	0.5840	0.9491	0.4851	1.5402	-0.0	1.5818
SIGMAS	11	12	13	14	15	16	17	18	19	20
	1.2074	2.0348	0.8737	-0.0	0.4404	0.3048	0.4990	0.3011	0.9886	2.3048

R MATRIX	1	2	3	4	5	6	7	8	9	10
1	1.0000	0.5313	***	0.1432	0.1704	0.0615	-0.0640	0.5338	***	0.2180
2	0.5313	1.0000	0.0	0.0939	0.1536	0.3331	-0.0604	0.9885	0.0	0.2065
3	***	0.0	1.0000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.1432	0.0939	0.0	1.0000	-0.1885	-0.5719	-0.1832	0.0948	0.0	0.9736
5	0.1704	0.1536	0.0	-0.1885	1.0000	-0.3324	-0.1064	0.1528	0.0	-0.1703
6	0.0615	0.3331	0.0	-0.5719	-0.3324	1.0000	-0.3230	0.3339	0.0	-0.5169
7	-0.0640	-0.0604	0.0	-0.1832	-0.1064	-0.3230	1.0000	-0.0734	0.0	-0.1655
8	0.5338	0.9885	0.0	0.0948	0.1528	0.3339	-0.0734	1.0000	0.0	0.2091
9	***	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0000	0.0
10	0.2180	0.2065	0.0	0.9736	-0.1703	-0.5169	-0.1655	0.2091	0.0	1.0000
11	0.1848	0.1950	0.0	-0.1785	0.9853	-0.3148	-0.1008	0.1971	0.0	-0.1613
12	0.1411	0.4781	0.0	-0.5064	-0.2943	0.9695	-0.2860	0.4826	0.0	-0.4577
13	-0.0377	-0.0005	0.0	-0.1693	-0.0984	-0.2985	0.9756	-0.0121	0.0	-0.1530
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	[illegible]									

80.71

D-76

1225

17	-0.0531	0.0996	0.0	-0.6074	-0.3530	0.9416	-0.3430	0.0958	0.0	-0.5490
18	-0.0977	-0.1501	0.0	-0.1907	-0.1108	-0.3363	0.9604	-0.1492	0.0	-0.1724
19	-0.0985	-0.0097	0.0	-0.8471	-0.1575	0.5378	0.4975	-0.0132	0.0	-0.7655
20	0.2610	0.6657	0.0	-0.5978	-0.0276	0.6655	0.3149	0.6535	0.0	-0.4927

80.71

R MATRIX

	11	12	13	14	15	16	17	18	19	20
1	0.1848	0.1411	-0.0377	0.0	0.0273	0.1440	-0.0531	-0.0977	-0.0985	0.2610
2	0.1950	0.1721	-0.0005	0.0	-0.0708	0.0875	0.0996	-0.1501	-0.0097	0.6657
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	-0.1785	-0.5064	-0.1693	0.0	0.9526	-0.1936	-0.6074	-0.1907	-0.8471	-0.5978
5	0.9853	-0.2943	-0.0984	0.0	-0.1979	0.9733	-0.3530	-0.1108	-0.1575	-0.0276
6	-0.3148	0.9695	-0.2985	0.0	-0.6004	-0.3415	0.9416	-0.3363	0.5378	0.6655
7	-0.1008	-0.2860	0.9756	0.0	-0.1923	-0.1094	-0.3430	0.9604	0.4975	0.3149
8	0.1971	0.4826	-0.0121	0.0	-0.0660	0.0860	0.0958	-0.1492	-0.0132	0.6535
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	-0.1613	-0.4577	-0.1530	0.0	0.8609	-0.1750	-0.5490	-0.1724	-0.7655	-0.4927
11	1.0000	-0.2787	-0.0932	0.0	-0.1874	0.9218	-0.3343	-0.1050	-0.1492	0.0029
12	-0.2787	1.0000	-0.2643	0.0	-0.5317	-0.3024	0.8337	-0.2978	0.4762	0.7278
13	-0.0932	-0.2643	1.0000	0.0	-0.1777	-0.1011	-0.3171	0.8876	0.4598	0.3451
14	0.0	0.0	0.0	1.0000	0.0	0.0	0.0	0.0	0.0	0.0
15	-0.1874	-0.5317	-0.1777	0.0	1.0000	-0.2033	-0.6377	-0.2002	-0.8893	-0.6937
16	0.9218	-0.3024	-0.1011	0.0	-0.2033	1.0000	-0.3627	-0.1139	-0.1619	-0.0695
17	-0.3343	0.8337	-0.3171	0.0	-0.6377	-0.3627	1.0000	-0.3572	0.5712	0.5083
18	-0.1050	-0.2978	0.8876	0.0	-0.2002	-0.1139	-0.3572	1.0000	0.5181	0.2427
19	-0.1492	0.4762	0.4598	0.0	-0.8893	-0.1619	0.5712	0.5181	1.0000	0.7134
20	0.0029	0.7278	0.3451	0.0	-0.6937	-0.0695	0.5083	0.2427	0.7134	1.0000

D-77

30.71

MODEL 1 M1 CRITERION = 1

PREDICTORS = 4= 7 10=13 15=18

R = 0.5632 RSQ = 0.3172 65 ITERATIONS.

V	BETA	B
4	0.0071	0.0060
5	0.0	0.0
6	0.0	0.0
7	0.0	0.0
10	0.7563	0.3185
11	0.3452	0.1905
12	0.6041	0.1978
13	0.2188	0.1668
15	-0.3652	-0.5524
16	0.0	0.0
17	-0.2168	-0.2895
18	-0.0919	-0.2032
REG. CONST. =		2.2458

MODEL 2 M2 CRITERION = 1

PREDICTORS = 4= 8 15=18

R = 0.5635 RSQ = 0.3175 34 ITERATIONS.

V	BETA	B
4	0.2103	0.1787
5	-0.1763	-0.2011
6	-0.3298	-0.2315
7	-0.1654	-0.2272
8	0.6057	0.2620
15	-0.3503	-0.5299
16	0.1154	0.2521
17	0.0334	0.0446
18	0.0150	0.0333
REG. CONST. =		2.1081

MODEL 3 M3 CRITERION = 1

PREDICTORS = 2= 2 19=20

R = 0.5547 RSQ = 0.3077 15 ITERATIONS.

V	BETA	B
2	0.9618	1.4235
19	0.3675	0.2476
20	-0.6401	-0.1850
REG. CONST. =		0.4344

229

80.71

MODEL 4 M4 CRITERION = 1

PREDICTORS = 2- 2

R = 0.5313 RSQ = 0.2822 1 ITERATIONS.

V	BETA	B
2	0.5313	0.7863
REG. CONST. =		1.2859

MODEL 5 M5 CRITERION = 1

PREDICTORS = 2- 2 19-19

R = 0.5394 RSQ = 0.2910 2 ITERATIONS.

V	BETA	B
2	0.5304	0.7849
19	-0.0934	-0.0629
REG. CONST. =		1.5066

F-TEST 1 MODEL 1 VS MODEL 2
RSQ FULL = 0.3172 MODEL 1
RSQ REDUCED = 0.3175 MODEL 2
DIFFERENCE = -0.0003
DFN = 3. DFD = 345. F-RATIO = 0.0 P = 1.0000

F-TEST 2 MODEL 2 VS MODEL 3
RSQ FULL = 0.3175 MODEL 2
RSQ REDUCED = 0.3077 MODEL 3
DIFFERENCE = 0.0098
DFN = 5. DFD = 348. F-RATIO = 0.996 P = 0.4211

F-TEST 3 MODEL 3 VS MODEL 4
RSQ FULL = 0.3077 MODEL 3
RSQ REDUCED = 0.2822 MODEL 4
DIFFERENCE = 0.0255
DFN = 2. DFD = 353. F-RATIO = 6.500 P = 0.0021

F-TEST 4 MODEL 3 VS MODEL 5
RSQ FULL = 0.3077 MODEL 3
RSQ REDUCED = 0.2910 MODEL 5
DIFFERENCE = 0.0168
DFN = 1. DFD = 353. F-RATIO = 8.555 P = 0.0040

F-TEST 5 MODEL 5 VS MODEL 4
RSQ FULL = 0.2910 MODEL 5
RSQ REDUCED = 0.2822 MODEL 4
DIFFERENCE = 0.0087
DFN = 1. DFD = 354. F-RATIO = 4.352 P = 0.0353

*** OUTPUT FROM PROGRAM REGRAN ***

COOPERATION AND GAIN -- 5-80/4-81 ITBS AVG.READING TOTAL G.E. -- GRADE 4

PARAMETERS
COL 1- 5 = 20
COL 6-10 = 345
COL 11-15 = 5
COL 16-20 = 5
COL 21-25 = 1

DATA FORMAT = (DUMMY) 0710

80.71

INTERCORRELATION ANALYSIS.

	1	2	3	4	5	6	7	8	9	10
MEANS	3.4614	2.6255	0.7272	0.3728	0.6499	0.8168	0.0588	7.2235	1.[illegible]0	0.9815
MEANS	11	12	13	14	15	16	17	18	19	20
	1.8864	2.2642	0.1523	0.2870	0.1507	0.2319	0.3072	0.0232	2.6290	6.9838
SIGMAS	1	2	3	4	5	6	7	8	9	10
	0.8476	0.5746	1.1875	0.9179	1.2100	1.2637	0.3858	2.9077	3.4217	2.6274
SIGMAS	11	12	13	14	15	16	17	18	19	20
	1.6880	3.7328	1.0274	0.4523	0.3578	0.4220	0.4614	0.1505	1.2494	3.7557

D-80

R MATRIX	1	2	3	4	5	6	7	8	9	10
1	1.0000	0.6915	0.0196	-0.0162	0.1807	0.1399	-0.0169	0.6930	0.1029	0.0561
2	0.6915	1.0000	0.0435	0.0054	0.2591	0.1648	-0.0098	0.9905	0.1500	0.0945
3	0.0196	0.0435	1.0000	-0.2487	-0.3289	-0.3958	-0.0934	0.0384	0.9785	-0.2288
4	-0.0162	0.0054	-0.2487	1.0000	-0.2181	-0.2625	-0.0619	0.0101	-0.2301	0.9760
5	0.1807	0.2591	-0.3289	-0.2181	1.0000	-0.3471	-0.0819	0.2654	-0.3044	-0.2006
6	0.1399	0.1648	-0.3958	-0.2625	-0.3471	1.0000	-0.0986	0.1591	-0.3663	-0.2414
7	-0.0169	-0.0098	-0.0934	-0.0619	-0.0819	-0.0986	1.0000	-0.0207	-0.0864	-0.0570
8	0.6930	0.9905	0.0384	0.0101	0.2654	0.1591	-0.0207	1.0000	0.1469	0.1017
9	0.1029	0.1500	0.9785	-0.2301	-0.3044	-0.3663	-0.0864	0.1469	1.0000	-0.2117
10	0.0561	0.0945	-0.2288	0.9760	-0.2006	-0.2414	-0.0570	0.1017	-0.2117	1.0000
11	0.2161	0.3186	-0.3132	-0.2077	0.9865	-0.3306	-0.0780	0.3295	-0.2899	-0.1911
12	0.1956	0.2519	-0.3715	-0.2463	-0.3258	0.9827	-0.0925	0.2492	-0.3437	-0.2266
13	-0.0115	0.0032	-0.0908	-0.0602	-0.0796	-0.0958	0.9911	-0.0072	-0.0840	-0.0554
14	-0.0876	-0.1006	0.9654	-0.2576	-0.3407	-0.4100	-0.0967	-0.1017	0.8933	-0.2370
15	-0.1089	-0.1118	-0.2580	0.9639	-0.2263	-0.2723	-0.0642	-0.1031	-0.2387	0.8867

16	0.1287	0.1692	-0.3365	-0.2231	0.9775	-0.3551	-0.3838	0.1722	-0.3114	-0.2053
17	0.0599	0.0382	-0.4079	-0.2704	-0.3577	0.9705	-0.1016	0.0334	-0.3774	-0.2488
18	-0.0225	-0.0236	-0.0944	-0.0626	-0.0827	-0.0996	0.9898	-0.0347	-0.0873	-0.0576
19	0.1113	0.1133	-0.7985	-0.2044	0.1595	0.7093	0.2894	0.1072	-0.7389	-0.1881
20	0.3525	0.4837	-0.7040	-0.1857	0.2466	0.7064	0.2420	0.4771	-0.6347	-0.1434

R MATRIX

	11	12	13	14	15	16	17	18	19	20
1	0.2161	0.1956	-0.0115	-0.0876	-0.1089	0.1287	0.0599	-0.0225	0.1113	0.3525
2	0.3186	0.2519	0.0032	-0.1006	-0.1118	0.1692	0.0382	-0.0236	0.1133	0.4837
3	-0.3132	-0.3715	-0.0908	0.9654	-0.2580	-0.3365	-0.4079	-0.0944	-0.7985	-0.7040
4	-0.2077	-0.2463	-0.0602	-0.2576	0.9639	-0.2231	-0.2704	-0.0626	-0.2044	-0.1857
5	0.9865	-0.3258	-0.0796	-0.3407	-0.2263	0.9775	-0.3577	-0.0827	0.1595	0.2466
6	-0.3306	0.9827	-0.0958	-0.4100	-0.2723	-0.3551	0.9705	-0.0996	0.7093	0.7064
7	-0.0780	-0.0925	0.9911	-0.0967	-0.0642	-0.0838	-0.1016	0.9898	0.2894	0.2420
8	0.3295	0.2492	-0.0072	-0.1017	-0.1031	0.1722	0.0334	-0.0347	0.1072	0.4771
9	-0.2899	-0.3437	-0.0840	0.8933	-0.2387	-0.3114	-0.3774	-0.0873	-0.7389	-0.6347
10	-0.1911	-0.2266	-0.0554	-0.2370	0.8867	-0.2053	-0.2488	-0.0576	-0.1881	-0.1434
11	1.0000	-0.3103	-0.0758	-0.3245	-0.2155	0.9309	-0.3406	-0.0788	0.1519	0.2678
12	-0.3103	1.0000	-0.0899	-0.3848	-0.2555	-0.3333	0.9108	-0.0935	0.6656	0.7224
13	-0.0758	-0.0899	1.0000	-0.0941	-0.0625	-0.0815	-0.0987	0.9623	0.2814	0.2450
14	-0.3245	-0.3848	-0.0941	1.0000	-0.2673	-0.3486	-0.4225	-0.0977	-0.8271	-0.7516
15	-0.2155	-0.2555	-0.0625	-0.2673	1.0000	-0.2315	-0.2806	-0.0649	-0.2121	-0.2286
16	0.9309	-0.3333	-0.0815	-0.3486	-0.2315	1.0000	-0.3659	-0.0847	0.1632	0.2083
17	-0.3406	0.9108	-0.0987	-0.4225	-0.2806	-0.3659	1.0000	-0.1026	0.7308	0.6473
18	-0.0788	-0.0935	0.9623	-0.0977	-0.0649	-0.0847	-0.1026	1.0000	0.2924	0.2340
19	0.1519	0.6656	0.2814	-0.8271	-0.2121	0.1632	0.7308	0.2924	1.0000	0.9051
20	0.2678	0.7224	0.2450	-0.7516	-0.2286	0.2083	0.6473	0.2340	0.9051	1.0000

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D-81

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MODEL 1 M1 CRITERION = 1

PREDICTORS = 3- 7 9-18

R = 0.7001 RSQ = 0.4902 81 ITERATIONS.

V	BETA	B
3	0.0	0.0
4	0.0	0.0
5	0.0	0.0
6	0.0	0.0
7	0.2657	0.5837
9	0.8870	0.2197
10	0.6992	0.2256
11	0.7429	0.1707
12	0.8463	0.1922
13	0.0	0.0
14	-0.0268	-0.0502
15	-0.0559	-0.1324
16	0.1768	0.3547
17	0.1128	0.2072
18	-0.0069	-0.0386
REG. CONST. =		1.9117

MODEL 2 M2 CRITERION = 1

PREDICTORS = 3- 8 14-18

R = 0.7002 RSQ = 0.4903 39 ITERATIONS.

V	BETA	B
3	0.0653	0.0466
4	0.1840	0.1700
5	-0.2409	-0.1687
6	-0.1934	-0.1297
7	-0.1010	-0.2218
8	0.7072	0.2061
14	-0.3153	-0.5907
15	-0.4025	-0.9535
16	0.0145	0.0290
17	-0.0342	-0.0629
18	0.0210	0.1183
REG. CONST. =		2.4268

MODEL 3 M3 CRITERION = 1

PREDICTORS = 2- 2 19-20

R = 0.6946 RSQ = 0.4824 10 ITERATIONS.

V	BETA	B
2	0.8016	1.1824
19	0.2907	0.1972
20	-0.2957	-0.0667
REG. CONST. =		0.3045

```
MODEL  4 M4  CRITERION =  1

PREDICTORS =  2= 2

R = 0.6915     RSQ = 0.4782          1 ITERATIONS.

  V      BETA        B
  2    0.6915    1.0200
REG. CONST. =    0.7833


MODEL  5 M5  CRITERION =  1

PREDICTORS =  2= 2 19=19

R = 0.6923     RSQ = 0.4793          2 ITERATIONS.

  V      BETA        B
  2    0.6877    1.0145
 19    0.0334    0.0226
REG. CONST. =    0.7384


F=TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =    0.4902      MODEL  1
RSQ REDUCED = 0.4903      MODEL  2
DIFFERENCE = -0.0001
DFN =  4.     DFD =  330.     F=RATIO =   0.0     P = 1.0000


F=TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =    0.4903      MODEL  2
RSQ REDUCED = 0.4824      MODEL  3
DIFFERENCE =  0.0078
DFN =  7.     DFD =  334.     F=RATIO =   0.734   P = 0.6448


F=TEST  3   MODEL 3 VS MODEL 4
RSQ FULL =    0.4824      MODEL  3
RSQ REDUCED = 0.4782      MODEL  4
DIFFERENCE =  0.0042
DFN =  2.     DFD =  341.     F=RATIO =   1.394   P = 0.2482


F=TEST  4   MODEL 3 VS MODEL 5
RSQ FULL =    0.4824      MODEL  3
RSQ REDUCED = 0.4793      MODEL  5
DIFFERENCE =  0.0031
DFN =  1.     DFD =  341.     F=RATIO =   2.063   P = 0.1479


F=TEST  5   MODEL 5 VS MODEL 4
RSQ FULL =    0.4793      MODEL  5
RSQ REDUCED = 0.4782      MODEL  4
DIFFERENCE =  0.0011
DFN =  1.     DFD =  342.     F=RATIO =   0.722   P = 0.4006
```

CLUPERATION AND GAIN -- 4-80/4-81 IFBS AVG.READING TOTAL G.E. -- GRADE 5

PARAMETERS
COL 1- 5 = 20
COL 6-10 = 318
COL 11-15 = 5
COL 16-20 = 5
COL 21-25 = 1

DATA FORMAT = (OUHPYI'

0710

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INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8	9	10
	4.2657	3.3252	0.9516	0.3821	0.8421	1.0805	0.0689	11.6094	3.2403	1.2915
MEANS	11	12	13	14	15	16	17	18	19	20
	2.9588	3.8650	0.2538	0.2925	0.1195	0.2516	0.3176	0.0189	2.6509	8.9085
SIGMAS	1	2	3	4	5	6	7	8	9	10
	1.0299	0.7434	1.5280	1.0703	1.4999	1.6424	0.4991	4.6986	5.5620	3.8552
SIGMAS	11	12	13	14	15	16	17	18	19	20
	5.6268	6.3231	1.8677	0.4549	0.3244	0.4339	0.4655	0.1361	1.2492	4.8846

D-84

R MATRIX	1	2	3	4	5	6	7	8	9	10
1	1.0000	0.7754	0.0091	-0.0782	0.2076	0.1859	0.0590	0.7858	0.0842	-0.0382
2	0.7754	1.0000	0.0671	0.0264	0.1422	0.2229	0.0669	0.9899	0.1572	0.0885
3	0.0091	0.0671	1.0000	-0.2223	-0.3497	-0.4097	-0.0859	0.0526	0.9815	-0.2086
4	-0.0782	0.0264	-0.2223	1.0000	-0.2004	-0.2349	-0.0493	0.0223	-0.2080	0.9827
5	0.2076	0.1422	-0.3497	-0.2004	1.0000	-0.3694	-0.0775	0.1428	-0.3271	-0.1881
6	0.1859	0.2229	-0.4097	-0.2349	-0.3694	1.0000	-0.0908	0.2354	-0.3833	-0.2204
7	0.0590	0.0669	-0.0859	-0.0493	-0.0775	-0.0908	1.0000	0.0619	-0.0804	-0.0462
8	0.7858	0.9899	0.0526	0.0223	0.1428	0.2354	0.0619	1.0000	0.1461	0.0849
9	0.0842	0.1572	0.9815	-0.2080	-0.3271	-0.3833	-0.0804	0.1461	1.0000	-0.1952
10	-0.0382	0.0885	-0.2086	0.9827	-0.1881	-0.2204	-0.0462	0.0849	-0.1952	1.0000
11	0.2812	0.2257	-0.3275	-0.1877	0.9824	-0.3459	-0.0726	0.2294	-0.3063	-0.1762
12	0.2635	0.3210	-0.3807	-0.2182	-0.3432	0.9807	-0.0843	0.3383	-0.3561	-0.2048
13	0.0658	0.0726	-0.0846	-0.0485	-0.0763	-0.0894	0.9948	0.0691	-0.0792	-0.0455
14	-0.0867	-0.0617	0.9686	-0.2295	-0.3610	-0.4230	-0.0887	-0.0725	0.9062	-0.2154
15	-0.1242	-0.0633	-0.2294	0.9690	-0.2068	-0.2424	-0.0508	-0.0629	-0.2146	0.9093

16	0.0967	0.0174	-0.3611	-0.2070	0.9684	-0.3814	-0.0800	0.0187	-0.3378	-0.1942
17	0.0660	0.0705	-0.4249	-0.2435	-0.3831	0.9643	-0.0941	0.0812	-0.3975	-0.2285
18	0.0517	0.0606	-0.0864	-0.0495	-0.0779	-0.0912	0.9951	0.0544	-0.0808	-0.0465
19	0.1312	0.1009	-0.8230	-0.1860	0.1569	0.7105	0.2595	0.1112	-0.7699	-0.1746
20	0.4401	0.4975	-0.7016	-0.1570	0.1876	0.7272	0.2689	0.5060	-0.6420	-0.1279

R MATRIX

	11	12	13	14	15	16	17	18	19	20
1	0.2812	-0.2635	0.0658	-0.0867	-0.1242	0.0967	0.0660	0.0517	0.1312	0.4401
2	0.2257	0.3210	0.0726	-0.0617	-0.0633	0.0174	0.0705	0.0606	0.1009	0.4975
3	-0.3275	-0.3807	-0.0846	0.9686	-0.2294	-0.3611	-0.4249	-0.0864	-0.8230	-0.7016
4	-0.1877	-0.2182	-0.0485	-0.2295	0.9690	-0.2070	-0.2435	-0.0495	-0.1860	-0.1570
5	0.9824	-0.3432	-0.0763	-0.3610	-0.2068	0.9684	-0.3831	-0.0779	0.1569	0.1876
6	-0.3459	0.9807	-0.0894	-0.4230	-0.2424	-0.3814	0.9643	-0.0912	0.7105	0.7272
7	-0.0726	-0.0843	0.9948	-0.0887	-0.0508	-0.0800	-0.0941	0.9951	0.2595	0.2689
8	0.2294	0.3383	0.0691	-0.0725	-0.0629	0.0187	0.0812	0.0544	0.1112	0.5060
9	-0.3063	-0.3561	-0.0792	0.9062	-0.2146	-0.3378	-0.3975	-0.0808	-0.7699	-0.6420
10	-0.1762	-0.2048	-0.0455	-0.2154	0.9093	-0.1942	-0.2285	-0.0465	-0.1746	-0.1279
11	1.0000	-0.3214	-0.0715	-0.3381	-0.1937	0.9070	-0.3587	-0.0729	0.1469	0.2179
12	-0.3214	1.0000	-0.0831	-0.3930	-0.2252	-0.3544	0.8959	-0.0848	0.6601	0.7451
13	-0.0715	-0.0831	1.0000	-0.0874	-0.0501	-0.0788	-0.0927	0.9799	0.2555	0.2700
14	-0.3381	-0.3930	-0.0874	1.0000	-0.2368	-0.3727	-0.4386	-0.0892	-0.8497	-0.7443
15	-0.1937	-0.2252	-0.0501	-0.2368	1.0000	-0.2136	-0.2513	-0.0511	-0.1920	-0.1896
16	0.9070	-0.3544	-0.0788	-0.3727	-0.2136	1.0000	-0.3955	-0.0804	0.1620	0.1346
17	-0.3587	0.8959	-0.0927	-0.4386	-0.2513	-0.3955	1.0000	-0.0946	0.7368	0.6564
18	-0.0729	-0.0848	0.9799	-0.0892	-0.0511	-0.0804	-0.0946	1.0000	0.2608	0.2652
19	0.1469	0.6601	0.2555	-0.8497	-0.1920	0.1620	0.7368	0.2608	1.0000	0.8937
20	0.2179	0.7451	0.2700	-0.7443	-0.1896	0.1346	0.6564	0.2652	0.8937	1.0000

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D-85

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MODEL 1 M1 CRITERION = 1

PREDICTORS = 3= 7 9=18

R = 0.7998 RSQ = 0.6397 94 ITERATIONS.

V	BETA	B
3	0.0	0.0
4	0.0	0.0
5	0.0	0.0
6	0.0	0.0
7	0.0	0.0
9	0.8983	0.1663
10	0.4554	0.1216
11	1.1102	0.2032
12	1.0213	0.1663
13	0.2854	0.1574
14	-0.1162	-0.2630
15	0.0145	0.0460
16	-0.2130	-0.5055
17	-0.0946	-0.2093
18	0.0	0.0
REG. CONST. =		2.5506

MODEL 2 M2 CRITERION = 1

PREDICTORS = 3= 8 14=18

R = 0.8005 RSQ = 0.6407 34 ITERATIONS.

V	BETA	B
3	-0.0412	-0.0278
4	-0.2755	-0.2651
5	0.3429	0.2355
6	0.0	0.0
7	0.0070	0.0145
8	0.7634	0.1673
14	0.0	0.0
15	0.1843	0.5850
16	-0.2900	-0.6883
17	-0.0146	-0.0324
18	0.0	0.0
REG. CONST. =		2.3652

MODEL 3 M3 CRITERION = 1

PREDICTORS = 2= 2 19=20

R = 0.7788 RSQ = 0.6065 20 ITERATIONS.

V	BETA	B
2	0.6663	0.9230
19	-0.1573	-0.1297
20	0.2511	0.0530
REG. CONST. =		1.0686

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MODEL 4 M4 CRITERION = 1

PREDICTORS = 2- 2

R = 0.7754 RSQ = 0.6012 1 ITERATIONS.

V	BETA	B
2	0.7754	1.0741
REG. CONST. =		0.6941

MODEL 5 M5 CRITERION = 1

PREDICTORS = 2- 2 19-19

R = 0.7772 RSQ = 0.6040 2 ITERATIONS.

V	BETA	B
2	0.7700	1.0666
19	0.0536	0.0442
REG. CONST. =		0.6019

F-TEST 1 MODEL 1 VS MODEL 2
RSQ FULL = 0.6397 MODEL 1
RSQ REDUCED = 0.6407 MODEL 2
DIFFERENCE = -0.0010
DFN = 4. DFD = 303. F-RATIO = 0.0 P = 1.0000

F-TEST 2 MODEL 2 VS MODEL 3
RSQ FULL = 0.6407 MODEL 2
RSQ REDUCED = 0.6065 MODEL 3
DIFFERENCE = 0.0343
DFN = 7. DFD = 307. F-RATIO = 4.182 P = 0.0004

F-TEST 3 MODEL 3 VS MODEL 4
RSQ FULL = 0.6065 MODEL 3
RSQ REDUCED = 0.6012 MODEL 4
DIFFERENCE = 0.0053
DFN = 2. DFD = 314. F-RATIO = 2.119 P = 0.1197

F-TEST 4 MODEL 3 VS MODEL 5
RSQ FULL = 0.6065 MODEL 3
RSQ REDUCED = 0.6040 MODEL 5
DIFFERENCE = 0.0025
DFN = 1. DFD = 314. F-RATIO = 1.971 P = 0.1576

F-TEST 5 MODEL 5 VS MODEL 4
RSQ FULL = 0.6040 MODEL 5
RSQ REDUCED = 0.6012 MODEL 4
DIFFERENCE = 0.0028
DFN = 1. DFD = 315. F-RATIO = 2.260 P = 0.1297

*** OUTPUT FROM PROGRAM REGRAN ***

COOPERATION AND GAIN -- 4-80/4-81 TBS AVG.READING TOTAL G.E. -- GRADE 6

PARAMETERS
COL 1- 5 = 20
COL 6-10 = 288
COL 11-15 = 5
COL 16-20 = 5
COL 21-25 = 1

DATA FORMAT = (DUMMY)

0710

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INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8	9	10
	4.9899	4.0760	1.0882	0.5865	0.9816	1.3358	0.0840	17.3640	4.4035	2.5748
MEANS	11	12	13	14	15	16	17	18	19	20
	4.3261	5.7180	0.3415	0.2847	0.1389	0.2326	0.3229	0.0208	2.6563	10.9691
SIGMAS	1	2	3	4	5	6	7	8	9	10
	1.0493	0.8660	1.7943	1.4931	1.8337	1.9834	0.5783	6.8221	7.8842	6.8917
SIGMAS	11	12	13	14	15	16	17	18	19	20
	8.5878	9.0247	2.3771	0.4513	0.3458	0.4225	0.4676	0.1428	1.2513	5.7744

R MATRIX	1	2	3	4	5	6	7	8	9	10
1	1.0000	0.7359	-0.0495	0.0816	0.2299	0.0897	0.0083	0.7368	0.0452	0.1137
2	0.7359	1.0000	-0.0206	0.1426	0.2047	0.1592	-0.0019	0.9925	0.0988	0.1954
3	-0.0495	-0.0206	1.0000	-0.2381	-0.3247	-0.4085	-0.0881	-0.0222	0.9778	-0.2266
4	0.0816	0.1426	-0.2381	1.0000	-0.2102	-0.2644	-0.0570	0.1451	-0.2193	0.9862
5	0.2299	0.2047	-0.3247	-0.2102	1.0000	-0.3605	-0.0778	0.2151	-0.2990	-0.2000
6	0.0897	0.1592	-0.4085	-0.2644	-0.3605	1.0000	-0.0979	0.1499	-0.3762	-0.2516
7	0.0083	-0.0019	-0.0881	-0.0570	-0.0778	-0.0979	1.0000	-0.0154	-0.0812	-0.0543
8	0.7368	0.9925	-0.0222	0.1451	0.2151	0.1499	-0.0154	1.0000	0.0946	0.2003
9	0.0452	0.0988	0.9778	-0.2193	-0.2990	-0.3762	-0.0812	0.0946	1.0000	-0.2087
10	0.1137	0.1954	-0.2266	0.9862	-0.2000	-0.2516	-0.0543	0.2003	-0.2087	1.0000
11	0.2795	0.2825	-0.3055	-0.1978	0.9835	-0.3393	-0.0732	0.2961	-0.2814	-0.1882
12	0.1626	0.2450	-0.3843	-0.2488	-0.3392	0.9824	-0.0921	0.2413	-0.3539	-0.2367
13	0.0079	0.0031	-0.0871	-0.0564	-0.0769	-0.0968	0.9964	-0.0101	-0.0802	-0.0537
14	-0.1707	-0.1851	0.9613	-0.2477	-0.3377	-0.4249	-0.0917	-0.1795	0.8853	-0.2357
15	0.0345	0.0679	-0.2436	0.9777	-0.2150	-0.2705	-0.0584	0.0692	-0.2243	0.9303

D-88

212

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				-0.2162	0.9722	-0.3708	-0.0800	0.0994	-0.3075	-0.2057
17	-0.0019	0.0483	-0.4188	-0.2712	-0.3697	0.9752	-0.1003	0.0348	-0.3857	-0.2580
18	0.0084	-0.0072	-0.0885	-0.0573	-0.0781	-0.0982	0.9961	-0.0208	-0.0815	-0.0545
19	0.1148	0.1311	-0.8027	-0.2059	0.1470	0.7232	0.2721	0.1157	-0.7393	-0.1959
20	0.3733	0.4801	-0.7271	-0.1488	0.2088	0.7177	0.2353	0.4712	-0.6519	-0.1237

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R MATRIX	11	12	13	14	15	16	17	18	19	20
1	0.2795	0.1626	0.0079	-0.1707	0.0345	0.1533	-0.0019	0.0084	0.1148	0.3733
2	0.2825	0.2450	0.0031	-0.1851	0.0679	0.0912	0.0483	-0.0072	0.1311	0.4801
3	-0.3055	-0.3843	-0.0871	0.9613	-0.2436	-0.3339	-0.4188	-0.0885	-0.8027	-0.7271
4	-0.1978	-0.2488	-0.0564	-0.2477	0.9777	-0.2162	-0.2712	-0.0573	-0.2059	-0.1488
5	0.5835	-0.3392	-0.0769	-0.3377	-0.2150	0.9722	-0.3697	-0.0781	0.1470	0.2088
6	-0.3393	0.9824	-0.0968	-0.4249	-0.2705	-0.3708	0.9752	-0.0982	0.7232	0.7177
7	-0.0232	-0.0921	0.9964	-0.0917	-0.0584	-0.0800	-0.1003	0.9961	0.2721	0.2353
8	0.2961	0.2813	-0.0101	-0.1755	0.0692	0.0994	0.0348	-0.0208	0.1157	0.4712
9	-0.2814	-0.3539	-0.0802	0.8853	-0.2243	-0.3075	-0.3857	-0.0815	-0.7393	-0.6519
10	-0.1882	-0.2367	-0.0537	-0.2357	0.9303	-0.2057	-0.2580	-0.0545	-0.1959	-0.1237
11	1.0000	-0.3192	-0.0724	-0.3178	-0.2023	0.9149	-0.3479	-0.0735	0.1384	0.2370
12	-0.3192	1.0000	-0.0910	-0.3997	-0.2545	-0.3489	0.9175	-0.0924	0.6804	0.7324
13	-0.0724	-0.0910	1.0000	-0.0906	-0.0577	-0.0791	-0.0992	0.9850	0.2691	0.2365
14	-0.3178	-0.3997	-0.0906	1.0000	-0.2534	-0.3474	-0.4357	-0.0920	-0.8351	-0.7809
15	-0.2023	-0.2545	-0.0577	-0.2534	1.0000	-0.2211	-0.2774	-0.0586	-0.2106	-0.1756
16	0.9149	-0.3489	-0.0791	-0.3474	-0.2211	1.0000	-0.3802	-0.0803	0.1513	0.1611
17	-0.3479	0.9175	-0.0992	-0.4357	-0.2774	-0.3802	1.0000	-0.1007	0.7416	0.6670
18	-0.0735	-0.0924	0.9850	-0.0920	-0.0586	-0.0803	-0.1007	1.0000	0.2732	0.2323
19	0.1384	0.6804	0.2691	-0.8351	-0.2106	0.1513	0.7416	0.2732	1.0000	0.9140
20	0.2370	0.7324	0.2365	-0.7809	-0.1756	0.1611	0.6670	0.2323	0.9140	1.0000

D-89

80.71

MODEL 1 M1 CRITERION = 1

PREDICTORS = 3= 7 9=18

R = 0.7463 RSQ = 0.5570 80 ITERATIONS.

V	BETA	B
3	0.0	0.0
4	0.0	0.0
5	0.0	0.0
6	0.0	0.0
7	0.0	0.0
9	0.8993	0.1197
10	0.6289	0.0958
11	0.8729	0.1067
12	1.0225	0.1189
13	0.0	0.0
14	-0.0499	-0.1160
15	0.1093	0.3318
16	0.1297	0.3222
17	-0.0406	-0.0912
18	0.2840	2.0866
REG. CONST. =		2.9731

MODEL 2 M2 CRITERION = 1

PREDICTORS = 3= 8 14=18

R = 0.7448 RSQ = 0.5548 56 ITERATIONS.

V	BETA	B
3	0.1671	0.0977
4	-0.0781	-0.0549
5	-0.0971	-0.0555
6	0.1927	0.1020
7	-0.0616	-0.1117
8	0.6968	-0.1072
14	0.0	0.0
15	0.2158	0.6549
16	0.3453	0.8575
17	0.0	0.0
18	0.1445	1.0613
REG. CONST. =		2.6700

MODEL 3 M3 CRITERION = 1

PREDICTORS = 2= 2 19=20

R = 0.7365 RSQ = 0.5425 15 ITERATIONS.

V	BETA	B
2	0.6958	0.8431
19	-0.0708	-0.0594
20	0.1033	0.0188
REG. CONST. =		1.5056

21

80.71

MODEL 4 M4 CRITERION = 1

PREDICTORS = 2= 2

R = 0.7359 RSQ = 0.5416 1 ITERATIONS.

V	BETA	B
2	0.7359	0.8917
REG. CONST. =		1.3552

MODEL 5 M5 CRITERION = 1

PREDICTORS = 2= 2 19=19

R = 0.7362 RSQ = 0.5420 2 ITERATIONS.

V	BETA	B
2	0.7335	0.8888
19	0.0186	0.0156
REG. CONST. =		1.3258

F=TEST 1 MODEL 1 VS MODEL 2
RSQ FULL = 0.5570 MODEL 1
RSQ REDUCED = 0.5548 MODEL 2
DIFFERENCE = 0.0022
DFN = 4. DFD = 273. F=RATIO = 0.342 P = 0.8502

F=TEST 2 MODEL 2 VS MODEL 3
RSQ FULL = 0.5548 MODEL 2
RSQ REDUCED = 0.5425 MODEL 3
DIFFERENCE = 0.0123
DFN = 7. DFD = 277. F=RATIO = 1.096 P = 0.3655

F=TEST 3 MODEL 3 VS MODEL 4
RSQ FULL = 0.5425 MODEL 3
RSQ REDUCED = 0.5416 MODEL 4
DIFFERENCE = 0.0008
DFN = 2. DFD = 284. F=RATIO = 0.261 P = 0.7737

F=TEST 4 MODEL 3 VS MODEL 5
RSQ FULL = 0.5425 MODEL 3
RSQ REDUCED = 0.5420 MODEL 5
DIFFERENCE = 0.0005
DFN = 1. DFD = 284. F=RATIO = 0.312 P = 0.5837

F=TEST 5 MODEL 5 VS MODEL 4
RSQ FULL = 0.5420 MODEL 5
RSQ REDUCED = 0.5416 MODEL 4
DIFFERENCE = 0.0003
DFN = 1. DFD = 285. F=RATIO = 0.211 P = 0.6512

REGRESSION ANALYSES COMPARING AT-HOME PARTICIPANTS AND CONTROL STUDENTS AT GRADES 1-6.

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AT HOME -- GRADE 1 -- 9-80 MRT/4-81 ITBS AVG. READING TOTAL G.E.

80-71

PARAMETERS
COL 1- 5 = 8
COL 6-10 = 48
COL 11-15 = 5
COL 16-20 = 4
COL 21-25 = 1

DATA FORMAT = (DUMMY)

0500

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8
	1.8521	45.0000	21.4583	23.5417	2213.2917	1000.0000	1213.2917	0.5000

SIGMAS	1	2	3	4	5	6	7	8
	0.7767	13.7219	23.2280	25.6726	1197.8838	1250.8586	1515.5400	0.5000

R MATRIX	1	2	3	4	5	6	7	8
1	1.0000	0.7631	-0.0077	0.4148	0.7750	0.0978	0.5318	-0.1690
2	0.7631	1.0000	0.1078	0.4369	0.9862	0.2606	0.5644	-0.1518
3	-0.0077	0.1078	1.0000	-0.8471	0.0712	0.9642	-0.7396	0.9238
4	0.4148	0.4369	-0.8471	1.0000	0.4628	-0.7331	0.9708	-0.9170
5	0.7750	0.9862	0.0712	0.4628	1.0000	0.2345	0.5969	-0.1781
6	0.0978	0.2606	0.9642	-0.7331	0.2345	1.0000	-0.6400	0.7995
7	0.5318	0.5644	-0.7396	0.9708	0.5969	-0.6400	1.0000	-0.8006
8	-0.1690	-0.1518	0.9238	-0.9170	-0.1781	0.7995	-0.8006	1.0000

D-94

MODEL 1 M1 CRITERION = 1

PREDICTORS = 3= 4 6= 8

R = 0.7859 RSQ = 0.6177 19 ITERATIONS.

V	BETA	B
3	0.8103	0.0271
4	0.0	0.0
6	0.1309	0.0001
7	1.1055	0.0006
8	-0.1372	-0.2131
REG. CONST. =		0.6085

MODEL 2 M2 CRITERION = 1

PREDICTORS = 3= 5 8= 8

R = 0.7840 RSQ = 0.6146 9 ITERATIONS.

V	BETA	B
3	0.0	0.0
4	0.4365	0.0132
5	0.6345	0.0004
8	0.3443	0.5349
REG. CONST. =		0.3631

MODEL 3 M3 CRITERION = 1

PREDICTORS = 3= 4 8= 8

R = 0.7766 RSQ = 0.6032 49 ITERATIONS.

V	BETA	B
3	1.0335	0.0346
4	1.6209	0.0490
8	0.3627	0.5634
REG. CONST. =		-0.3257

MODEL 4 M4 CRITERION = 1

PREDICTORS = 2= 2 8= 8

R = 0.7650 RSQ = 0.5852 2 ITERATIONS.

V	BETA	B
2	0.7548	0.0427
8	-0.0544	-0.0845
REG. CONST. =		-0.0284

```
MODEL  5 M5  CRITERION =  1

PREDICTORS =  2= 2

R = 0.7631      RSQ = 0.5823          1 ITERATIONS.

  V       BETA        B
  2     0.7631     0.0432
REG. CONST. =    -0.0917


F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =     0.6177      MODEL  1
RSQ REDUCED =  0.6146      MODEL  2
DIFFERENCE =   0.0030
DFN =  1.      DFD =   42.      F-RATIO =    0.335    P = 0.5728


F-TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =     0.6146      MODEL  2
RSQ REDUCED =  0.6032      MODEL  3
DIFFERENCE =   0.0114
DFN =  1.      DFD =   43.      F-RATIO =    1.277    P = 0.2638


F-TEST  3   MODEL 3 VS MODEL 4
RSQ FULL =     0.6032      MODEL  3
RSQ REDUCED =  0.5852      MODEL  4
DIFFERENCE =   0.0180
DFN =  1.      DFD =   44.      F-RATIO =    1.993    P = 0.1616


F-TEST  4   MODEL 4 VS MODEL 5
RSQ FULL =     0.5852      MODEL  4
RSQ REDUCED =  0.5823      MODEL  5
DIFFERENCE =   0.0029
DFN =  1.      DFD =   45.      F-RATIO =    0.313    P = 0.5851
```

AT HOME — GRADE 2 — 4-80/4-81 ITBS AVG. READING TOTAL G.E.

PARAMETERS
COL 1- 5/ = 8
COL 6-10 = 94
COL 11-15 = 5
COL 16-20 = 4
COL 21-25 = 1

DATA FORMAT = (DUMMY)

.0500

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8
	2.3223	1.6064	0.7968	0.8096	2.9368	1.4522	1.4846	0.5000

SIGMAS	1	2	3	4	5	6	7	8
	0.7543	0.5969	0.9041	0.9106	2.4326	2.2505	2.2726	0.5000

R MATRIX	1	2	3	4	5	6	7	8
1	1.0000	0.5724	0.2159	0.1609	0.6176	0.3398	0.3246	0.0804
2	0.5724	1.0000	0.3192	0.3387	0.9549	0.5092	0.5179	-0.0214
3	0.2159	0.3192	1.0000	-0.7836	0.3078	0.9141	-0.5758	0.8814
4	0.1609	0.3387	-0.7836	1.0000	0.3204	-0.5737	0.9112	-0.8891
5	0.6176	0.9549	0.3078	0.3204	1.0000	0.5313	0.5442	-0.0133
6	0.3398	0.5092	0.9141	-0.5737	0.5313	1.0000	-0.4215	0.6453
7	0.3246	0.5179	-0.5758	0.9112	0.5442	-0.4215	1.0000	-0.6533
8	0.0804	-0.0214	0.8814	-0.8891	-0.0133	0.6453	-0.6533	1.0000

80.71

D-97

MODEL 1 M1 CRITERION = 1

PREDICTORS = 3= 4 6= 8

R = 0.6648 RSQ = 0.4420 223 ITERATIONS.

V	BETA	B
3	-1.3821	-1.1532
4	0.6132	0.5080
6	1.3159	0.4410
7	0.3038	0.1009
8	1.1926	1.7991
REG. CONST. =		1.1402

MODEL 2 M2 CRITERION = 1

PREDICTORS = 3= 5 8= 8

R = 0.6421 RSQ = 0.4122 7 ITERATIONS.

V	BETA	B
3	-0.4341	-0.3622
4	0.0	0.0
5	0.7576	0.2349
8	0.4729	0.7135
REG. CONST. =		1.5643

MODEL 3 M3 CRITERION = 1

PREDICTORS = 3= 4 8= 8

R = 0.5986 RSQ = 0.3583 37 ITERATIONS.

V	BETA	B
3	0.6621	0.5524
4	1.1010	0.9121
8	0.4757	0.7177
REG. CONST. =		0.7849

MODEL 4 M4 CRITERION = 1

PREDICTORS = 2= 2 8= 8

R = 0.5798 RSQ = 0.3362 2 ITERATIONS.

V	BETA	B
2	0.5744	0.7258
8	0.0927	0.1398
REG. CONST. =		1.0866

256

MODEL 5 M5 CRITERION = 1

PREDICTORS = 2= 2

R = 0.5724 RSQ/= 0.3276 1 ITERATIONS.

V	BETA	B
2	0.5724	0.7233
REG. CONST. =		1.1605

F-TEST 1 MODEL 1 VS MODEL 2
RSQ FULL = 0.4420 MODEL 1
RSQ REDUCED = 0.4122 MODEL 2
DIFFERENCE = 0.0297
DFN = 1. DFD = 88. F-RATIO = 4.689 P = 0.0310

F-TEST 2 MODEL 2 VS MODEL 3
RSQ FULL = 0.4122 MODEL 2
RSQ REDUCED = 0.3583 MODEL 3
DIFFERENCE = 0.0539
DFN = 1. DFD = 89. F-RATIO = 8.162 P = 0.0055

F-TEST 3 MODEL 3 VS MODEL 4
RSQ FULL = 0.3583 MODEL 3
RSQ REDUCED = 0.3362 MODEL 4
DIFFERENCE = 0.0221
DFN = 1. DFD = 90. F-RATIO = 3.105 P = 0.0777

F-TEST 4 MODEL 4 VS MODEL 5
RSQ FULL = 0.3362 MODEL 4
RSQ REDUCED = 0.3276 MODEL 5
DIFFERENCE = 0.0086
DFN = 1. DFD = 91. F-RATIO = 1.177 P = 0.2805

AT HOME -- GRADE 3 -- 4-80/4-81 ITBS AVG. READING TOTAL G.E.

80-71

PARAMETERS
CCL 1- 5 = 8
COL 6-10 = 44
COL 11-15 = 5
COL 16-20 = 4
CCL 21-25 = 1

DATA FORMAT = (DUMMY)

0500

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8
	2.7114	1.7682	0.8773	0.8909	3.4855	1.7168	1.7686	0.5000

SIGMAS	1	2	3	4	5	6	7	8
	0.8125	0.5992	0.9732	0.9874	2.6631	2.5434	2.5877	0.5000

R MATRIX	1	2	3	4	5	6	7	8
1	1.0000	0.7048	0.1443	0.2854	0.7072	0.3305	0.4030	-0.0979
2	0.7048	1.0000	0.2841	0.3268	0.9745	0.4906	0.5207	-0.0228
3	0.1443	0.2841	1.0000	-0.8133	0.2800	0.9199	-0.6161	0.9014
4	0.2854	0.3268	-0.8133	1.0000	0.3154	-0.6091	0.9232	-0.9023
5	0.7072	0.9745	0.2800	0.3154	1.0000	0.5068	0.5311	-0.0195
6	0.3305	0.4906	0.9199	-0.6091	0.5068	1.0000	-0.4614	0.6750
7	0.4030	0.5207	-0.6161	0.9232	0.5311	-0.4614	1.0000	-0.6835
8	-0.0979	-0.0228	0.9014	-0.9023	-0.0195	0.6750	-0.6835	1.0000

B-100

MODEL 1 M1 CRITERION = 1

PREDICTORS = 3= 4 6= 8

R = 0.7171 RSQ = 0.5143 135 ITERATIONS.

V	BETA	B
3	0.2965	0.2475
4	0.2465	0.2029
6	0.5585	0.1784
7	0.4929	0.1548
8	-0.1828	-0.2970
REG. CONST. =		1.8820

MODEL 2 M2 CRITERION = 1

PREDICTORS = 3= 5 8= 8

R = 0.7177 RSQ = 0.5151 98 ITERATIONS.

V	BETA	B
3	0.4954	0.4136
4	0.2795	0.2300
5	0.4748	0.1449
8	-0.2859	-0.4645
REG. CONST. =		1.8710

MODEL 3 M3 CRITERION = 1

PREDICTORS = 3= 4 8= 8

R = 0.7120 RSQ = 0.5070 38 ITERATIONS.

V	BETA	B
3	1.2290	1.0260
4	1.0750	0.8845
8	-0.2328	-0.3782
REG. CONST. =		1.2124

MODEL 4 M4 CRITERION = 1

PREDICTORS = 2= 2 8= 8

R = 0.7095 RSQ = 0.5034 2 ITERATIONS.

V	BETA	B
2	0.7029	0.9532
8	-0.0819	-0.1331
REG. CONST. =		1.0925

```
MODEL  5 M5  CRITERION =  1

PREDICTORS =  2- 2

R = 0.7048      RSQ = 0.4967          1 ITERATIONS.

  V .      BETA        B
  2     0.7048     0.9557
REG. CONST. =      1.0215


F-TEST  1    MODEL 1 VS MODEL 2
RSQ FULL =      0.5143      MODEL  1
RSQ REDUCED =  0.5151      MODEL  2
DIFFERENCE = -0.0008
DFN =  1.      DFD =   38.      F-RATIO =   0.0      P = 1.0000


F-TEST  2    MODEL 2 VS MODEL 3
RSQ FULL =      0.5151      MODEL  2
RSQ REDUCED =  0.5070      MODEL  3
DIFFERENCE =  0.0081
DFN =  1.      DFD =   39.      F-RATIO =   0.651    P = 0.4303


F-TEST  3    MODEL 3 VS MODEL 4
RSQ FULL =      0.5070      MODEL  3
RSQ REDUCED =  0.5034      MODEL  4
DIFFERENCE =  0.0035
DFN =  1.      DFD =   40.      F-RATIO =   0.287    P = 0.6015


F-TEST  4    MODEL 4 VS MODEL 5
RSQ FULL =      0.5034      MODEL  4
RSQ REDUCED =  0.4967      MODEL  5
DIFFERENCE =  0.0067
DFN =  1.      DFD =   41.      F-RATIO =   0.554    P = 0.4676
```

201

AT HOME -- GRADE 4 -- 4-80/4-81 ITBS AVG. READING TOTAL G.E.

PARAMETERS
COL 1- 5 = 8
COL 6-10 = 28
COL 11-15 = 5
COL 16-20 = 4
COL 21-25 = 1

DATA FORMAT = (DUMMY)

0500

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8
	3.6321	2.8357	1.4214	1.4143	8.3721	4.2021	4.1700	0.5000

SIGMAS	1	2	3	4	5	6	7	8
	0.7611	0.5752	1.4771	1.4730	3.3482	4.8197	4.7987	0.5000

R MATRIX	1	2	3	4	5	6	7	8
1	1.0000	0.7128	0.0591	0.2191	0.6952	0.1887	0.2955	-0.1079
2	0.7128	1.0000	0.2017	0.1882	0.9931	0.3508	0.3407	0.0124
3	0.0591	0.2017	1.0000	-0.9240	0.1998	0.9714	-0.8363	0.9623
4	0.2191	0.1882	-0.9240	1.0000	0.1875	-0.8371	0.9716	-0.9601
5	0.6952	0.9931	0.1998	0.1875	1.0000	0.3536	0.3426	0.0096
6	0.1887	0.3508	0.9714	-0.8371	0.3536	1.0000	-0.7577	0.8719
7	0.2955	0.3407	-0.8363	0.9716	0.3426	-0.7577	1.0000	-0.8690
8	-0.1079	0.0124	0.9623	-0.9601	0.0096	0.8719	-0.8690	1.0000

80.71

MODEL 1 M1 CRITERION = 1

PREDICTORS = 3= 4 6= 8

R = 0.7566 RSQ = 0.5725 807 ITERATIONS.

V	BETA	B
3	7.7864	4.0124
4	1.7061	0.8816
6	-3.1075	-0.4907
7	-0.1317	-0.0209
8	-3.3712	-5.1319
REG. CONST. =		1.3972

MODEL 2 M2 CRITERION = 1

PREDICTORS = 3= 5 8= 8

R = 0.7458 RSQ = 0.5563 388 ITERATIONS.

V	BETA	B
3	4.5984	2.3696
4	3.7028	1.9133
5	-0.9084	-0.2065
8	-0.9713	-1.4786
REG. CONST. =		0.0262

MODEL 3 M3 CRITERION = 1

PREDICTORS = 3= 4 8= 8

R = 0.7358 RSQ = 0.5414 97 ITERATIONS.

V	BETA	B
3	2.1770	1.1218
4	1.5156	0.7831
8	-0.7478	-1.1383
REG. CONST. =		1.4992

MODEL 4 M4 CRITERION = 1

PREDICTORS = 2= 2 8= 8

R = 0.7223 RSQ = 0.5217 2 ITERATIONS.

V	BETA	B
2	0.7142	0.9451
8	-0.1168	-0.1778
REG. CONST. =		1.0410

```
MODEL   5 M5  CRITERION =   1

PREDICTORS =   2= 2

R = 0.7128      RSQ = 0.5081          1 ITERATIONS.

  V       BETA        B
  2     0.7128     0.9432
REG. CONST. =      0.9576


F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =      0.5725      MODEL   1
RSQ REDUCED =  0.5563      MODEL   2
DIFFERENCE =   0.0162
DFN =   1.      DFD =    22.      F-RATIO =    0.835    P = 0.3739


F-TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =      0.5563      MODEL   2
RSQ REDUCED =  0.5414      MODEL   3
DIFFERENCE =   0.0149
DFN =   1.      DFD =    23.      F-RATIO =    0.771    P = 0.3928


F-TEST  3   MODEL 3 VS MODEL 4
RSQ FULL =      0.5414      MODEL   3
RSQ REDUCED =  0.5217      MODEL   4
DIFFERENCE =   0.0197
DFN =   1.      DFD =    24.      F-RATIO =    1.030    P = 0.3214


F-TEST  4   MODEL 4 VS MODEL 5
RSQ FULL =      0.5217      MODEL   4
RSQ REDUCED =  0.5081      MODEL   5
DIFFERENCE =   0.0136
DFN =   1.      DFD =    25.      F-RATIO =    0.713    P = 0.4112
```

AT HOME -- GRADE 5 -- 4-80/4-81 ITBS AVG. READING TOTAL G.E.

80.71

PARAMETERS
CCL 1- 5 = 8
CCL 6-10 = 42
CDL 11-15 = 5
CCL 16-20 = 4
CCL 21-25 = 1

DATA FORMAT = (DUMMY)

0500

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8
	4.6000	3.7071	1.8500	1.8571	15.8802	7.8978	7.9824	0.5000

SIGMAS	1	2	3	4	5	6	7	8
	1.6596	1.4620	2.1155	2.1292	12.7563	11.8821	12.1501	0.5000

R MATRIX	1	2	3	4	5	6	7	8
1	1.0000	0.9437	0.3887	0.2618	0.9288	0.5703	0.4174	0.0201
2	0.9437	1.0000	0.3362	0.3526	0.9876	0.5143	0.5339	-0.0049
3	0.3887	0.3362	1.0000	-0.7628	0.3274	0.9389	-0.5745	0.8745
4	0.2618	0.3526	-0.7628	1.0000	0.3528	-0.5798	0.9374	-0.8722
5	0.9288	0.9876	0.3274	0.3528	1.0000	0.5155	0.5457	-0.0066
6	0.5703	0.5143	0.9389	-0.5798	0.5155	1.0000	-0.4367	0.6647
7	0.4174	0.5339	-0.5745	0.9374	0.5457	-0.4367	1.0000	-0.6570
8	0.0201	-0.0049	0.8745	-0.8722	-0.0066	0.6647	-0.6570	1.0000

MODEL 1 M1 CRITERION = 1

PREDICTORS = 3= 4 6= 8

R = 0.9574 RSQ = 0.9167 294 ITERATIONS.

V	BETA	B
3	2.1581	1.6930
4	0.2356	0.1837
6	-0.3807	-0.0532
7	0.6075	0.0830
8	-1.0095	-3.3507
REG. CONST. =		2.5597

MODEL 2 M2 CRITERION = 1

PREDICTORS = 3= 5 8= 8

R = 0.9549 RSQ = 0.9119 126 ITERATIONS.

V	BETA	B
3	1.5980	1.2536
4	1.1573	0.9021
5	-0.0051	-0.0007
8	-0.3709	-1.2311
REG. CONST. =		1.2317

MODEL 3 M3 CRITERION = 1

PREDICTORS = 3= 4 8= 8

R = 0.9550 RSQ = 0.9119 35 ITERATIONS.

V	BETA	B
3	1.5678	1.2299
4	1.1804	0.9201
8	-0.3213	-1.0666
REG. CONST. =		1.1492

```
MODEL   4 M4  CRITERION =  1

PREDICTORS =  2= 2  8= 8

R = 0.9441      RSQ = 0.8912          2 ITERATIONS.

  V       BETA        B
  2     0.9439     1.0715
  8     0.0247     0.0820
REG. CONST. =     0.5870


MODEL   5 M5  CRITERION =  1

PREDICTORS =  2= 2

R = 0.9437      RSQ = 0.8906          1 ITERATIONS.

  V       BETA        B
  2     0.9437     1.0713
REG. CONST. =     0.6285


F=TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =     0.9167      MODEL  1
RSQ REDUCED = 0.9119       MODEL  2
DIFFERENCE =  0.0048
DFN =  1.     DF0 =   36.      F=RATIO =    2.058    P = 0.1566


F=TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =     0.9119      MODEL  2
RSQ REDUCED = 0.9119       MODEL  3
DIFFERENCE = -0.0001
DFN =  1.     DF0 =   37.      F=RATIO =    0.0      P = 1.0000


F=TEST  3   MODEL 3 VS MODEL 4
RSQ FULL =     0.9119      MODEL  3
RSQ REDUCED = 0.8912       MODEL  4
DIFFERENCE =  0.0207
DFN =  1.     DF0 =   38.      F=RATIO =    8.933    P = 0.0051


F=TEST  4   MODEL 4 VS MODEL 5
RSQ FULL =     0.8912      MODEL  4
RSQ REDUCED = 0.8906       MODEL  5
DIFFERENCE =  0.0006
DFN =  1.     DF0 =   39.      F=RATIO =    0.219    P = 0.6474
```

AT HOME -- GRADE 6 -- 4-80/4-81 ITBS AVG. READING TOTAL G.E.

80.71

PARAMETERS
COL 1- 5 = 8
COL 6-10 = 32
COL 11-15 = 5
COL 16-20 = 4
COL 21-25 = 1

DATA FORMAT = (DUMMY)

0500

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8
	5.8687	4.6000	2.2781	2.3219	22.1794	10.9228	11.2566	0.5000

SIGMAS	1	2	3	4	5	6	7	8
	0.9040	1.0096	2.3944	2.4219	9.1844	12.7530	12.9469	0.5000

R MATRIX	1	2	3	4	5	6	7	8
1	1.0000	0.8348	0.0063	0.3417	0.8675	0.1777	0.4403	-0.1936
2	0.8348	1.0000	0.1834	0.2355	0.9830	0.3325	0.3699	-0.0433
3	0.0063	0.1834	1.0000	-0.9122	0.1818	0.9708	-0.8272	0.9515
4	0.3417	0.2355	-0.9122	1.0000	0.2300	-0.8211	0.9720	-0.9587
5	0.8675	0.9830	0.1818	0.2300	1.0000	0.3388	0.3757	-0.0363
6	0.1777	0.3325	0.9708	-0.8211	0.3388	1.0000	-0.7447	0.8565
7	0.4403	0.3699	-0.8272	0.9720	0.3757	-0.7447	1.0000	-0.8694
8	-0.1936	-0.0433	0.9515	-0.9587	-0.0363	0.8565	-0.8694	1.0000

MODEL 1 M1 CRITERION = 1

PREDICTORS = 3= 4, 6= 8

R = 0.9020 RSQ = 0.8135 416 ITERATIONS.

V	BETA	B
3	-2.5080	-0.9469
4	0.0	0.0
6	2.7682	0.1962
7	1.1134	0.0777
8	0.7896	1.4275
REG. CONST. =		4.2938

MODEL 2 M2 CRITERION = 1

PREDICTORS = 3= 5 8= 8

R = 0.8900 RSQ = 0.7922 216 ITERATIONS.

V	BETA	B
3	-1.1273	-0.4256
4	-1.4538	-0.5426
5	1.3899	0.1368
8	-0.4673	-0.8448
REG. CONST. =		5.4865

MODEL 3 M3 CRITERION = 1

PREDICTORS = 3= 4 8= 8

R = 0.8497 RSQ = 0.7219 55 ITERATIONS.

V	BETA	B
3	1.9809	0.[illegible]79
4	1.9665	0.[illegible]40
8	-0.1930	-0.3489
REG. CONST. =		2.6353

MODEL 4 M4 CRITERION = 1

PREDICTORS = 2= 2 8= 8

R = 0.8495 RSQ = 0.7217 2 ITERATIONS.

V	BETA	B
2	0.8279	0.7413
8	-0.1577	-0.2851
REG. CONST. =		2.6015

MODEL 5 M5 CRITERION = 1

PREDICTORS = 2= 2

R = 0.8348 RSQ = 0.6968 1 ITERATIONS.

V	BETA	B
2	0.8348/	0.7474
REG. CONST. =		2.4307

F-TEST 1 MODEL 1 VS MODEL 2
RSQ FULL = 0.8135 MODEL 1
RSQ REDUCED = 0.7922 MODEL 2
DIFFERENCE = 0.0214
DFN = 1. DFD = 26. F-RATIO = 2.978 P = 0.0928

F-TEST 2 MODEL 2 VS MODEL 3
RSQ FULL = 0.7922 MODEL 2
RSQ REDUCED = 0.7219 MODEL 3
DIFFERENCE = 0.0702
DFN = 1. DFD = 27. F-RATIO = 9.126 P = 0.0056

F-TEST 3 MODEL 3 VS MODEL 4
RSQ FULL = 0.7219 MODEL 3
RSQ REDUCED = 0.7217 MODEL 4
DIFFERENCE = 0.0003
DFN = 1. DFD = 28. F-RATIO = 0.027 P = 0.8640

F-TEST 4 MODEL 4 VS MODEL 5
RSQ FULL = 0.7217 MODEL 4
RSQ REDUCED = 0.6968 MODEL 5
DIFFERENCE = 0.0248
DFN = 1. DFD = 29. F-RATIO = 2.587 P = 0.1150

MODELS USED FOR EVALUATION QUESTION D2-2

Model 1: $$Y = a_0U + a_1X^{(3)} + a_2X^{(4)} + a_3X^{(5)} + a_4X^{(6)} + a_5X^{(7)} + a_6X^{(9)} + a_7X^{(10)} + a_8X^{(11)} + a_9X^{(12)} + a_{10}X^{(13)} + a_{11}X^{(14)} + a_{12}X^{(15)} + a_{13}X^{(16)} + a_{14}X^{(17)} + a_{15}X^{(18)} + E$$

Model 2: $$Y = a_{16}U + a_{17}X^{(3)} + a_{18}X^{(4)} + a_{19}X^{(5)} + a_{20}X^{(6)} + a_{21}X^{(7)} + a_{22}X^{(8)} + a_{23}X^{(14)} + a_{24}X^{(15)} + a_{25}X^{(16)} + a_{26}X^{(17)} + a_{27}X^{(18)} + E$$

Model 3: $$Y = a_{28}U + a_{29}X^{(3)} + a_{30}X^{(4)} + a_{31}X^{(5)} + a_{32}X^{(6)} + a_{33}X^{(7)} + a_{34}X^{(14)} + a_{35}X^{(15)} + a_{36}X^{(16)} + a_{37}X^{(17)} + a_{38}X^{(18)} + E$$

Model 4: $$Y = a_{39}U + a_{40}X^{(2)} + a_{41}X^{(14)} + a_{42}X^{(15)} + a_{43}X^{(16)} + a_{44}X^{(17)} + a_{45}X^{(18)} + E$$

Model 5: $$Y = a_{46}U + a_{47}X^{(2)} + E$$

Where,

- Y = posttest
- U = unit vector
- $X^{(2)}$ = pretest
- $X^{(3)}$ = pretest if member of group 1; 0, otherwise
- $X^{(4)}$ = pretest if member of group 2; 0, otherwise
- $X^{(5)}$ = pretest if member of group 3; 0, otherwise
- $X^{(6)}$ = pretest if member of group 4; 0, otherwise
- $X^{(7)}$ = pretest if member of group 5; 0, otherwise

$X^{(8)}$ = variable 2 squared

$X^{(9)}$ = variable 3 squared

$X^{(10)}$ = variable 4 squared

$X^{(11)}$ = variable 5 squared

$X^{(12)}$ = variable 6 squared

$X^{(13)}$ = variable 7 squared

$X^{(14)}$ = 1 if member of group 1; 0, otherwise

$X^{(15)}$ = 1 if member of group 2; 0, otherwise

$X^{(16)}$ = 1 if member of group 3; 0, otherwise

$X^{(17)}$ = 1 if member of group 4; 0, otherwise

$X^{(18)}$ = 1 if member of group 5; 0, otherwise

REGRESSION ANALYSES COMPARING SCHOOLWIDE PROJECT STUDENTS, TITLE I STUDENTS, AND FORMER TITLE I STUDENTS AT GRADES 1-6.

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*** OUTPUT FROM PROGRAM REGRAN ***

ANALYSIS 1 -- ITBS-SWP VS TI VS FTI -- GRADE 1 0850

PARAMETERS
COL 1- 5 = 18
COL 6-10 = 517
COL 11-15 = 5
COL 16-20 = 4
COL 21-25 = 1

DATA FORMAT = (DUMMY) 0870

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8	9	10
	1.3346	34.1799	3.3250	2.8859	19.1373	1.6789	7.1528	1234.2418	112.0754	114.1857
MEANS	11	12	13	14	15	16	17	18		
	683.4197	51.4275	273.1335	0.1044	0.0754	0.5667	0.0580	0.1954		
SIGMAS	1	2	3	4	5	6	7	8	9	10
	0.5618	8.1226	10.0509	10.2887	17.8096	6.9720	14.8987	536.5218	366.9526	422.4370
SIGMAS	11	12	13	14	15	16	17	18		
	717.4161	229.9224	600.5352	0.3058	0.2641	0.4955	0.2338	0.3965		

R MATRIX	1	2	3	4	5	6	7	8	9	10
1	1.0000	0.3771	-0.0024	0.2288	-0.0836	-0.0904	0.1915	0.3781	0.0264	0.2337
2	0.3771	1.0000	-0.0192	0.1860	0.2026	-0.1052	0.2368	0.9900	0.0483	0.2126
3	-0.0024	-0.0192	1.0000	-0.0928	-0.3555	-0.0797	-0.1588	-0.0240	0.9766	-0.0894
4	0.2288	0.1860	-0.0928	1.0000	-0.3014	-0.0675	-0.1347	0.1939	-0.0857	0.9900
5	-0.0836	0.2026	-0.3555	-0.3014	1.0000	-0.2588	-0.5159	0.1936	-0.3282	-0.2905
6	-0.0904	-0.1052	-0.0797	-0.0675	-0.2588	1.0000	-0.1156	-0.1117	-0.0735	-0.0651
7	0.1915	0.2368	-0.1588	-0.1347	-0.5159	-0.1156	1.0000	0.2428	-0.1466	-0.1298
8	0.3781	0.9900	-0.0240	0.1939	0.1936	-0.1117	0.2428	1.0000	0.0451	0.2231
9	0.0264	0.0483	0.9766	-0.0857	-0.3282	-0.0735	-0.1466	0.0451	1.0000	-0.0826
10	0.2337	0.2126	-0.0894	0.9900	-0.2905	-0.0651	-0.1298	0.2231	-0.0826	1.0000
11	-0.0148	0.3622	-0.3151	-0.2672	0.9698	-0.2294	-0.4673	0.3592	-0.2909	-0.2575
12	-0.0900	-0.0553	-0.0740	-0.0627	-0.2403	0.9782	-0.1074	-0.0646	-0.0683	-0.0605
13	0.2094	0.2939	-0.1505	-0.1276	-0.4987	-0.1015	0.9853	0.3046	-0.1389	-0.1229

80.71

B-116

15	0.2171	0.1434	-0.0945	0.9820	-0.3069	-0.0688	-0.1371	0.1488	-0.0872	0.9463
16	-0.1796	-0.0580	-0.3783	-0.3208	0.9395	-0.2754	-0.5491	-0.0694	-0.3493	-0.3091
17	-0.0860	-0.1603	-0.0821	-0.0696	-0.2667	0.9702	-0.1192	-0.1610	-0.0758	-0.0671
18	0.1590	0.1476	-0.1630	-0.1382	-0.5295	-0.1187	0.9743	0.1505	-0.1505	-0.1332

80.71

R MATRIX

	11	12	13	14	15	16	17	18
1	-0.0148	-0.0900	0.2094	-0.0369	0.2171	-0.1796	-0.0860	0.1590
2	0.3622	-0.0553	0.2939	-0.0987	0.1434	-0.0580	-0.1603	0.1476
3	-0.3151	-0.0740	-0.1505	0.9687	-0.0945	-0.3783	-0.0821	-0.1630
4	-0.2672	-0.0627	-0.1276	-0.0958	0.9820	-0.3208	-0.0696	-0.1382
5	0.9698	-0.2403	-0.4887	-0.3670	-0.3069	0.9395	-0.2667	-0.5295
6	-0.2294	0.9782	-0.1095	-0.0822	-0.0688	-0.2754	0.9702	-0.1187
7	-0.4573	-0.1074	0.9853	-0.1640	-0.1371	-0.5491	-0.1192	0.9743
8	0.3592	-0.0646	0.3046	-0.1026	0.1488	-0.0604	-0.1610	0.1505
9	-0.2909	-0.0683	-0.1389	0.8943	-0.0872	-0.3493	-0.0758	-0.1505
10	-0.2575	-0.0605	-0.1229	-0.0923	0.9463	-0.3091	-0.0671	-0.1332
11	1.0000	-0.2131	-0.4333	-0.3253	-0.2721	0.8329	-0.2364	-0.4694
12	-0.2131	1.0000	-0.1017	-0.0764	-0.0639	-0.2558	0.9012	-0.1102
13	-0.4333	-0.1017	1.0000	-0.1553	-0.1299	-0.5202	-0.1129	0.9230
14	-0.3253	-0.0764	-0.1553	1.0000	-0.0975	-0.3906	-0.0848	-0.1683
15	-0.2721	-0.0639	-0.1299	-0.0975	1.0000	-0.3267	-0.0709	-0.1407
16	0.8329	-0.2558	-0.5202	-0.3906	-0.3267	1.0000	-0.2839	-0.5635
17	-0.2364	0.9012	-0.1129	-0.0848	-0.0709	-0.2839	1.0000	-0.1223
18	-0.4694	-0.1102	0.9230	-0.1683	-0.1407	-0.5635	-0.1223	1.0000

D-117

MODEL 1 M1 CRITERION = 1

PREDICTORS = 3- 7 9-18

R = 0.4447 RSQ = 0.1978 77 ITERATIONS.

V	BETA	B
3	0.0	0.0
4	0.0	0.0
5	0.0116	0.0004
6	0.0	0.0
7	0.0	0.0
9	0.2779	0.0004
10	0.2983	0.0004
11	0.4301	0.0003
12	-0.0524	-0.0001
13	0.4399	0.0004
14	-0.0271	-0.0498
15	0.1345	0.2862
16	-0.0371	-0.0420
17	0.1566	0.3762
18	0.0494	0.0701
REG. CONST. =		0.8706

MODEL 2 M2 CRITERION = 1

PREDICTORS = 3- 8 14-18

R = 0.4450 RSQ = 0.1980 83 ITERATIONS.

V	BETA	B
3	0.1213	0.0068
4	0.0	0.0
5	-0.0780	0.0025
6	-0.3205	-0.0258
7	0.2105	0.0079
8	0.2971	0.0003
14	-0.0318	-0.0583
15	0.2373	0.5047
16	0.0	0.0
17	0.3427	0.8236
18	0.0	0.0
REG. CONST. =		0.7879

MODEL 3 M3 CRITERION = 1

PREDICTORS = 3- 7 14-18

R = 0.4458 RSQ = 0.1988 63 ITERATIONS.

V	BETA	B
3	0.4741	0.0265
4	0.5629	0.0307
5	0.7149	0.0225
6	-0.0625	-0.0050
7	0.7435	0.0280
14	-0.0304	-0.0559
15	0.0427	0.0908
16	-0.0047	-0.0053
17	0.3295	0.7916
18	0.0	0.0
REG. CONST. =		0.4903

MODEL 4 M4 CRITERION = 1

PREDICTORS = 2- 2 14-18

R = 0.4342 RSQ = 0.1886 7 ITERATIONS.

V	BETA	B
2	0.3327	0.0230
14	0.0413	0.0759
15	0.1935	0.4115
16	0.0	0.0
17	0.0	0.0
18	0.1425	0.2019
REG. CONST. =		0.4697

```
MCOEL  5 M5  CRITERION =  1

PREDICTORS = 2= 2

R = 0.3771      RSQ = 0.1422          1 ITERATIONS.

  V       BETA        B
 2     0.3771     0.0261
REG. CONST. =     0.4433


F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =     0.1978      MODEL  1
RSQ REDUCED = 0.1980       MODEL  2
DIFFERENCE = -0.0002
DFN =  4.      DFD =  502.      F-RATIO =    0.0      P = 1.0000


F-TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =     0.1980      MODEL  2
RSQ REDUCED = 0.1988       MODEL  3
DIFFERENCE = -0.0008
DFN =  1.      DFD =  506.      F-RATIO =    0.0      P = 1.0000


F-TEST  3   MODEL 3 VS MODEL 4
RSQ FULL =     0.1988      MODEL  3
RSQ REDUCED = 0.1886       MODEL  4
DIFFERENCE =  0.0102
DFN =  4.      DFD =  507.      F-RATIO =    1.614    P = 0.1692


F-TEST  4   MODEL 4 VS MODEL 5
RSQ FULL =     0.1886      MODEL  4
RSQ REDUCED = 0.1422       MODEL  5
DIFFERENCE =  0.0464
DFN =  4.      DFD =  511.      F-RATIO =    7.306    P = 0.0001
```

*** OUTPUT FROM PROGRAM REGRAN ***

ANALYSIS 1 -- ITBS-SWP VS II VS FII -- GRADE 2

0970

80.71

PARAMETERS
COL 1- 5 = 18
COL 6-10 = 423
COL 11-15 = 5
COL 16-20 = 4
COL 21-25 = 1

DATA FORMAT = (DUMMY)

0990

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8	9	10
	1.8766	1.0660	0.1402	0.0664	0.5716	0.0830	0.2047	1.2682	0.1701	0.0842
MEANS	11	12	13	14	15	16	17	18		
	0.1773	0.0948	0.2418	0.1253	0.0567	0.5296	0.0851	0.2033		
SIGMAS	1	2	3	4	5	6	7	8	9	10
	0.6216	0.3632	0.3879	0.2824	0.5921	0.2965	0.4471	0.6495	0.4996	0.3793
SIGMAS	11	12	13	14	15	16	17	18		
	0.7846	0.3688	0.5683	0.3311	0.2313	0.4991	0.2790	0.4025		

R MATRIX	1	2	3	4	5	6	7	8	9	10
1	1.0000	0.2011	0.2101	-0.0012	0.0380	-0.1308	0.0183	0.2176	0.2104	0.0181
2	0.2011	1.0000	0.1469	0.1303	0.3161	0.0587	0.1451	0.9560	0.1813	0.1559
3	0.2101	0.1469	1.0000	-0.0850	-0.3489	-0.1011	-0.1655	0.1448	0.9825	-0.0802
4	-0.0012	0.1303	-0.0850	1.0000	-0.2271	-0.0658	-0.1077	0.1470	-0.0801	0.9859
5	0.0380	0.3161	-0.3489	-0.2271	1.0000	-0.2702	-0.4421	0.2963	-0.3288	-0.2143
6	-0.1308	0.0587	-0.1011	-0.0658	-0.2702	1.0000	-0.1282	0.0475	-0.0953	-0.0621
7	0.0183	0.1451	-0.1655	-0.1077	-0.4421	-0.1282	1.0000	0.1343	-0.1559	-0.1016
8	0.2176	0.9560	0.1448	0.1470	0.2963	0.0475	0.1343	1.0000	0.1935	0.1794
9	0.2104	0.1813	0.9825	-0.0801	-0.3288	-0.0953	-0.1559	0.1935	1.0000	-0.0756
10	0.0181	0.1559	-0.0802	0.9859	-0.2143	-0.0621	-0.1016	0.1794	-0.0756	1.0000
11	0.0697	0.4103	-0.3120	-0.2031	0.9725	-0.2416	-0.3953	0.4225	-0.2940	-0.1916
12	-0.1211	0.0996	-0.0929	-0.0604	-0.2481	0.9741	-0.1177	0.1036	-0.0875	-0.0570
13	0.0340	0.1981	-0.1538	-0.1001	-0.4108	-0.1191	0.9806	0.2025	-0.1449	-0.0944
14	0.1831	0.0551	-0.0548	-0.0330	-0.1554	-0.1059	-0.1753	0.0523	-0.0938	-0.0340

D-121

29 1/2

29

15	-0.0204	0.0708	-0.0886	0.9590	-0.2368	-0.0686	-0.1123	0.0814	-0.0835	0.9049
16	-0.0271	0.0395	-0.3834	-0.2495	0.9100	-0.2970	-0.4858	0.0177	-0.3613	-0.2355
17	-0.1453	-0.0764	-0.1102	-0.0717	-0.2945	0.9177	-0.1397	-0.0726	-0.1039	-0.0677
18	-0.0046	-0.0820	-0.1826	-0.1188	-0.4877	-0.1414	0.9065	-0.0614	-0.1720	-0.1121

R MATRIX

	11	12	13	14	15	16	17	18
1	0.0697	-0.1211	0.0340	0.1831	-0.0204	-0.0271	-0.1453	-0.0046
2	0.4103	0.0996	0.1981	0.0551	0.0708	0.0395	-0.0764	-0.0820
3	-0.3120	-0.0929	-0.1538	0.9548	-0.0886	-0.3834	-0.1102	-0.1826
4	-0.2031	-0.0604	-0.1001	-0.0890	0.9590	-0.2495	-0.0717	-0.1188
5	0.9725	-0.2481	-0.4108	-0.3654	-0.2368	0.9100	-0.2945	-0.4877
6	-0.2416	0.9741	-0.1191	-0.1059	-0.0686	-0.2970	0.9177	-0.1414
7	-0.3953	-0.1177	0.9806	-0.1733	-0.1123	-0.4858	-0.1397	0.9065
8	0.4225	0.1036	0.2025	0.0523	0.0814	0.0177	-0.0726	-0.0614
9	-0.2940	-0.0875	-0.1449	0.8998	-0.0835	-0.3613	-0.1039	-0.1720
10	-0.1916	-0.0570	-0.0944	-0.0840	0.9049	-0.2355	-0.0677	-0.1121
11	1.0000	-0.2218	-0.3673	-0.3267	-0.2117	0.8137	-0.2633	-0.4361
12	-0.2218	1.0000	-0.1093	-0.0973	-0.0630	-0.2726	0.8425	-0.1298
13	-0.3673	-0.1093	1.0000	-0.1610	-0.1044	-0.4514	-0.1298	0.8423
14	-0.3267	-0.0973	-0.1610	1.0000	-0.0928	-0.4015	-0.1154	-0.1912
15	-0.2117	-0.0630	-0.1044	-0.0929	1.0000	-0.2602	-0.0748	-0.1239
16	0.8137	-0.2726	-0.4514	-0.4015	-0.2602	1.0000	-0.3236	-0.5360
17	-0.2633	0.8425	-0.1298	-0.1154	-0.0748	-0.3236	1.0000	-0.1541
18	-0.4361	-0.1298	0.8423	-0.1912	-0.1239	-0.5360	-0.1541	1.0000

MODEL 1 M1 CRITERION = 1

PREDICTORS = 3- 7 9-18

R = 0.3292 RSQ = 0.1084 324 ITERATIONS.

V	BETA	B
3	0.4163	0.6671
4	-0.6921	-1.5232
5	0.0	0.0
6	0.0246	0.0516
7	-0.5671	-0.7884
9	-0.0291	-0.0362
10	0.6564	1.0756
11	0.2766	0.2191
12	-0.0052	-0.0087
13	0.5554	0.6076
14	-0.1300	-0.2440
15	0.1051	0.2825
16	-0.1197	-0.1490
17	-0.0857	-0.1909
18	0.1400	0.2163
REG. CONST. =		1.7282

MODEL 2 M2 CRITERION = 1

PREDICTORS = 3- 8 14-18

R = 0.3128 RSQ = 0.0979 32 ITERATIONS.

V	BETA	B
3	0.1831	0.2934
4	0.0	0.0
5	0.0	0.0
6	-0.1340	-0.2809
7	-0.0935	-0.1300
8	0.2212	0.2117
14	-0.0202	-0.0380
15	-0.0309	-0.0831
16	-0.0052	-0.0064
17	0.0081	0.0179
18	0.0990	0.1529
REG. CONST. =		1.5971

MODEL 3 M3 CRITERION = 1

PREDICTORS = 3- 7 14-18

R = 0.3049 RSQ = 0.0929 81 ITERATIONS.

V	BETA	B
3	0.4295	0.6883
4	0.1745	0.3840
5	0.3587	0.3766
6	0.0049	0.0103
7	0.1422	0.1977
14	-0.1115	-0.2094
15	-0.0862	-0.2317
16	-0.1268	-0.1579
17	-0.0188	-0.0419
18	0.0384	0.0593
REG. CONST. =		1.6125

MODEL 4 M4 CRITERION = 1

PREDICTORS = 2- 2 14-18

R = 0.2894 RSQ = 0.0838 6 ITERATIONS.

V	BETA	B
2	0.1872	0.3204
14	0.1611	0.3025
15	-0.0261	-0.0702
16	0.0	0.0
17	-0.1113	-0.2480
18	0.0206	0.0318
REG. CONST. =		1.5158

```
MODEL  5 M5  CRITERION =  1.

PREDICTORS =  2= 2

R = 0.2011     RSQ = 0.0404          1 ITERATIONS.

  V       BETA        B
  2     0.2011.    0.3441
REG. CONST. =      1.5098


F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =     0.1084      MODEL  1
RSQ REDUCED =  0.0979      MODEL  2
DIFFERENCE =   0.0105
DFN =  4.      DFD =  408.      F-RATIO =    1.204    P = 0.3080


F-TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =     0.0979      MODEL  2
RSQ REDUCED =  0.0929      MODEL  3
DIFFERENCE =   0.0049
DFN =  1.      DFD =  412.      F-RATIO =    2.248    P = 0.1305


F-TEST  3   MODEL 3 VS MODEL 4
RSQ FULL =     0.0929      MODEL  3
RSQ REDUCED =  0.0838      MODEL  4
DIFFERENCE =   0.0092
DFN =  4.      DFD =  413.      F-RATIO =    1.045    P = 0.3843


F-TEST  4   MODEL 4 VS MODEL 5
RSQ FULL =     0.0838      MODEL  4
RSQ REDUCED =  0.0404      MODEL  5
DIFFERENCE =   0.0433
DFN =  4.      DFD =  417.      F-RATIO =    4.930    P = 0.0010
```

80.71

*** OUTPUT FROM PROGRAM REGRAN ***

ANALYSIS 1 -- ITBS-SWP VS TI VS FTI -- GRADE 3 1090

PARAMETERS
COL 1- 5 = 18
COL 6-10 = 454
COL 11-15 = 5
COL 16-20 = 4
COL 21-25 = 1

DATA FORMAT = (DUMMY) 1110

INTERCORRELATION ANALYSIS.

	1	2	3	4	5	6	7	8	9	10
MEANS	2.6015	1.7033	0.2491	0.1654	0.9141	0.1253	0.2493	3.0979	0.4612	0.2891

	11	12	13	14	15	16	17	18
MEANS	1.6756	0.2109	0.4612	0.1454	0.1013	0.5308	0.0793	0.1432

	1	2	3	4	5	6	7	8	9	10
SIGMAS	0.6663	0.4435	0.6317	0.5116	0.9166	0.4418	0.6317	1.5117	1.2930	0.9794

	11	12	13	14	15	16	17	18
SIGMAS	1.9136	0.8071	1.2558	0.3525	0.3318	0.4990	0.2702	0.3502

D-126

R MATRIX	1	2	3	4	5	6	7	8	9	10
1	1.0000	0.5329	0.2162	0.0232	0.1220	-0.1613	0.0750	0.5373	0.2600	0.0668
2	0.5329	1.0000	0.1315	0.0323	0.2919	-0.0134	0.1302	0.9909	0.2162	0.0997
3	0.2162	0.1315	1.0000	-0.1275	-0.3933	-0.1119	-0.1557	0.1443	0.9728	-0.1164
4	0.0232	0.0323	-0.1275	1.0000	-0.3225	-0.0917	-0.1276	0.0301	-0.1153	0.9737
5	0.1220	0.2919	-0.3933	-0.3225	1.0000	-0.2829	-0.3937	0.2864	-0.3557	-0.2944
6	-0.1613	-0.0134	-0.1119	-0.0917	-0.2829	1.0000	-0.1120	-0.0206	-0.1012	-0.0837
7	0.0750	0.1302	-0.1557	-0.1276	-0.3937	-0.1120	1.0000	0.1260	-0.1408	-0.1165
8	0.5373	0.9909	0.1443	0.0301	0.2864	-0.0206	0.1260	1.0000	0.2333	0.0994
9	0.2600	0.2162	0.9728	-0.1153	-0.3557	-0.1012	-0.1408	0.2333	1.0000	-0.1053
10	0.0668	0.0997	-0.1164	0.9737	-0.2944	-0.0837	-0.1165	0.0994	-0.1053	1.0000
11	0.2061	0.4412	-0.3453	-0.2831	0.9675	-0.2484	-0.3456	0.4420	-0.3123	-0.2585
12	-0.1384	0.0429	-0.1030	-0.0845	-0.2606	0.9763	-0.1031	0.0349	-0.0932	-0.0771
[illegible]	[illegible]	[illegible]	[illegible]	-0.1187	-0.3663	-0.1042	0.2805	0.1901	-0.1310	-0.1084

15	-0.0304	-0.0535	-0.1324	0.9630	-0.3349	-0.0953	-0.1325	-0.0543	-0.1198	0.8791
16	-0.0078	0.0448	-0.4195	-0.3439	0.9376	-0.3018	-0.4199	0.0413	-0.3794	-0.3140
17	-0.1781	-0.0812	-0.1157	-0.0949	-0.2927	0.9667	-0.1158	-0.0852	-0.1047	-0.0866
18	0.0359	0.0352	-0.1612	-0.1322	-0.4077	-0.1160	0.9656	0.0333	-0.1458	-0.1207

R MATRIX

	11	12	13	14	15	16	17	18
1	0.2061	-0.1384	0.1019	0.1379	-0.0304	-0.0078	-0.1791	0.0359
2	0.4412	0.0429	0.1925	0.0096	-0.0535	0.0448	-0.0812	0.0352
3	-0.3453	-0.1030	-0.1448	0.9561	-0.1324	-0.4195	-0.1157	-0.1612
4	-0.2831	-0.0845	-0.1187	-0.1334	0.9630	-0.3439	-0.0949	-0.1322
5	0.9675	-0.2606	-0.3663	-0.4113	-0.3349	0.9376	-0.2927	-0.4077
6	-0.2484	0.9763	-0.1042	-0.1170	-0.0953	-0.3018	0.9667	-0.1160
7	-0.3456	-0.1031	0.9805	-0.1628	-0.1325	-0.4199	-0.1158	0.9656
8	0.4420	0.0349	0.1901	0.0203	-0.0543	0.0413	-0.0852	0.0333
9	-0.3123	-0.0932	-0.1310	0.8647	-0.1198	-0.3794	-0.1047	-0.1458
10	-0.2585	-0.0771	-0.1084	-0.1217	0.8791	-0.3140	-0.0866	-0.1207
11	1.0000	-0.2288	-0.3216	-0.3611	-0.2940	0.8232	-0.2570	-0.3579
12	-0.2288	1.0000	-0.0959	-0.1078	-0.0877	-0.2779	0.8902	-0.1068
13	-0.3216	-0.0959	1.0000	-0.1515	-0.1233	-0.3906	-0.1078	0.8984
14	-0.3611	-0.1078	-0.1515	1.0000	-0.1385	-0.4387	-0.1210	-0.1686
15	-0.2940	-0.0877	-0.1233	-0.1385	1.0000	-0.3572	-0.0985	-0.1373
16	0.8232	-0.2779	-0.3906	-0.4387	-0.3572	1.0000	-0.3122	-0.4348
17	-0.2570	0.8902	-0.1078	-0.1210	-0.0985	-0.3122	1.0000	-0.1200
18	-0.3579	-0.1068	0.8984	-0.1686	-0.1373	-0.4348	-0.1200	1.0000

MODEL 1 M1 GRITERION = 1

PREDICTORS = 3- 7 9-18

R = 0.5759 RSQ = 0.3316 52 ITERATIONS.

V	BETA	B
3	0.0302	0.0318
4	0.0	0.0
5	0.0	0.0
6	0.0	0.0
7	0.0	0.0
9	0.5426	0.2796
10	0.3979	0.2707
11	0.6559	0.2284
12	0.1152	0.0951
13	0.3766	0.1998
14	0.0	0.0
15	-0.0496	-0.1096
16	-0.0051	-0.0068
17	0.0235	0.0580
18	0.0704	0.1339
REG. CONST. =		1.8825

MODEL 2 M2 CRITERION = 1

PREDICTORS = 3- 8 14-18

R = 0.5766 RSQ = 0.3325 63 ITERATIONS.

V	BETA	B
3	0.2550	0.2689
4	0.0748	0.0974
5	0.0071	0.0052
6	-0.3035	-0.4577
7	-0.0575	-0.0606
8	0.5087	0.2242
14	-0.1188	-0.2246
15	-0.0595	-0.1313
16	0.0	0.0
17	0.1777	0.4381
18	0.0842	0.1602
REG. CONST. =		1.8798

MODEL 3 M3 CRITERION = 1

PREDICTORS = 3= 7 14=18

R = 0.5760 RSQ = 0.3318 163 ITERATIONS.

V	BETA	B
3	1.0171	1.0727
4	0.6796	0.8848
5	1.0756	0.7819
6	0.1821	0.2747
7	0.5436	0.5734
14	-0.3582	-0.6772
15	-0.2534	-0.5595
16	-0.3094	-0.4131
17	0.0402	0.0992
18	0.0	0.0
REG. CONST. =		1.6624

MODEL 4 M4 CRITERION = 1

PREDICTORS = 2= 2 14=18

R = 0.5627 RSQ = 0.3166 7 ITERATIONS.

V	BETA	B
2	0.5218	0.7840
14	-0.1101	0.2081
15	-0.0055	-0.0123
16	-0.0206	-0.0275
17	-0.1271	-0.3134
18	0.0110	0.0209
REG. CONST. =		1.2737

```
MODEL  5 M5  CRITERION =  1

PREDICTORS =  2= 2

R = 0.5329      RSQ = 0.2840          1 ITERATIONS.

  V       BETA        B
  2     0.5329     0.8006
REG. CONST. =    -1.2379


F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =     0.3316      MODEL  1
RSQ REDUCED =  0.3325      MODEL  2
DIFFERENCE =  -0.0009
DFN =  4.      DFD =  439.      F-RATIO =    0.0     P = 1.0000


F-TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =     0.3325      MODEL  2
RSQ REDUCED =  0.3318      MODEL  3
DIFFERENCE =   0.0007
DFN =  1.      DFD =  443.      F-RATIO =    0.493    P = 0.4903


F-TEST  3   MODEL 3 VS MODEL 4
RSQ FULL =     0.3318      MODEL  3
RSQ REDUCED =  0.3166      MODEL  4
DIFFERENCE =   0.0151
DFN =  4.      DFD =  444.      F-RATIO =    2.515    P = 0.0403


F-TEST  4   MODEL 4 VS MODEL 5
RSQ FULL =     0.3166      MODEL  4
RSQ REDUCED =  0.2840      MODEL  5
DIFFERENCE =   0.0326
DFN =  4.      DFD =  448.      F-RATIO =    5.348    P = 0.0006
```

*** OUTPUT FROM PROGRAM REGRAN ***

ANALYSIS 1 -- ITBS-SHP VS TL VS FTL -- GRADE 4

1210

80.71

PARAMETERS
COL 1- 5 = 18
COL 6-10 = 503
COL 11-15 = 5
COL 16-20 = 4
COL 21-25 = 1

DATA FORMAT = (DUMMY)

1230

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8	9	10
	3.2483	2.5332	0.0	0.1487	1.3863	0.4638	0.5344	6.7238	0.0	0.4023
MEANS	11	12	13	14	15	16	17	18		
	3.8228	1.1133	1.3853	0.0	0.0577	0.5249	0.2028	0.2147		
SIGMAS	1	2	3	4	5	6	7	8	9	10
	0.8354	0.5538	-0.0	0.6166	1.3788	0.9477	1.0487	2.7850	-0.0	1.7728
SIGMAS	11	12	13	14	15	16	17	18		
	4.1780	2.4418	2.9103	-0.0	0.2331	0.4994	0.4021	0.4106		

R MATRIX

	1	2	3	4	5	6	7	8	9	10
1	1.0000	0.6854	0.0	0.1319	0.3346	-0.1883	0.0146	0.6932	0.0	0.1538
2	0.6854	1.0000	0.0	0.0750	0.4075	-0.1175	0.0544	0.9907	0.0	0.1168
3	0.0	0.0	1.0000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.1319	0.0750	0.0	1.0000	-0.2425	-0.1180	-0.1229	0.0780	0.0	0.9825
5	0.3346	0.4075	0.0	-0.2425	1.0000	-0.4921	-0.5124	0.4151	0.0	-0.2282
6	-0.1883	-0.1175	0.0	-0.1180	-0.4921	1.0000	-0.2494	-0.1271	0.0	-0.1111
7	0.0146	0.0544	0.0	-0.1229	-0.5124	-0.2494	1.0000	0.0464	0.0	-0.1156
8	0.6932	0.9907	0.0	0.0780	0.4151	-0.1271	0.0464	1.0000	0.0	0.1214
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0000	0.0
10	0.1538	0.1168	0.0	0.9825	-0.2282	-0.1111	-0.1156	0.1214	0.0	1.0000
11	0.4162	0.5320	0.0	-0.2207	0.9748	-0.4478	-0.4663	0.5471	0.0	-0.2076
12	-0.1280	-0.0273	0.0	-0.1100	-0.4584	0.9796	-0.2323	-0.0417	0.0	-0.1035
13	0.0796	0.1361	0.0	-0.1148	-0.4786	-0.2330	0.9791	0.1326	0.0	-0.1080
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

D4131

293

299

15	0.8990	0.0206	0.0	0.9750	-0.2487	-0.1211	-0.1260	0.0226	0.0	0.9175
16	0.1994	0.2051	0.0	-0.2535	0.9566	-0.5144	-0.5356	0.2113	0.0	-0.2385
17	-0.2494	-0.2240	0.0	-0.1216	-0.5071	0.9704	-0.2570	-0.2234	0.0	-0.1145
18	-0.0546	-0.0418	0.0	-0.1261	-0.5257	-0.2559	0.9745	-0.0510	0.0	-0.1187

R MATRIX

	11	12	13	14	15	16	17	18
1	0.4162	-0.1280	0.0796	0.0	0.0990	0.1994	-0.2494	-0.0546
2	0.5320	-0.0273	0.1361	0.0	0.0206	0.2051	-0.2240	-0.0418
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	-0.2207	-0.1100	-0.1148	0.0	0.9750	-0.2535	-0.1216	-0.1261
5	0.9748	-0.4584	-0.4786	0.0	-0.2487	0.9566	-0.5071	-0.5257
6	-0.4478	0.9796	-0.2330	0.0	-0.1211	-0.5144	0.9704	-0.2559
7	-0.4683	-0.2323	0.9791	0.0	-0.1260	-0.5356	-0.2570	0.9745
8	0.5471	-0.0417	0.1326	0.0	0.0226	0.2113	-0.2234	-0.0510
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	-0.2076	-0.1035	-0.1080	0.0	0.9175	-0.2385	-0.1145	-0.1187
11	1.0000	-0.4172	-0.4355	0.0	-0.2263	0.8706	-0.4615	-0.4784
12	-0.4172	1.0000	-0.2170	0.0	-0.1128	-0.4792	0.9040	-0.2384
13	-0.4355	-0.2170	1.0000	0.0	-0.1177	-0.5003	-0.2401	0.9103
14	0.0	0.0	0.0	1.0000	0.0	0.0	0.0	0.0
15	-0.2263	-0.1128	-0.1177	0.0	1.0000	-0.2600	-0.1247	-0.1293
16	0.8706	-0.4792	-0.5003	0.0	-0.2600	1.0000	-0.5301	-0.5496
17	-0.4615	0.9040	-0.2401	0.0	-0.1247	-0.5301	1.0000	-0.2637
18	-0.4784	-0.2384	0.9103	0.0	-0.1293	-0.5496	-0.2637	1.0000

80.71

D-132

80.71

MODEL 1 M1 CRITERION = 1

PREDICTORS = 4= 7 10=13 15=18

R = 0.7053 RSQ = 0.4974 87 ITERATIONS.

V	BETA	B
4	0.0	0.0
5	0.0	0.0
6	0.0	0.0
7	0.0	0.0
10	0.4253	0.2004
11	1.0136	0.2027
12	0.5194	0.1777
13	0.7349	0.2109
15	0.0404	0.1446
16	-0.0612	-0.1025
17	-0.0807	-0.1677
18	-0.1138	-0.2314
REG. CONST. =		2.0320

MODEL 2 M2 CRITERION = 1

PREDICTORS = 4= 8 15=18

R = 0.7052 RSQ = 0.4973 6 ITERATIONS.

V	BETA	B
4	-0.0075	-0.0102
5	0.0	0.0
6	-0.1043	-0.0920
7	0.0	0.0
8	0.6770	0.2031
15	0.0734	0.2632
16	0.0	0.0
17	0.0	0.0
18	-0.0378	-0.0770
REG. CONST. =		1.9285

MODEL 3 M3 CRITERION = 1

PREDICTORS = 4= 7 15=18

R = 0.6998 RSQ = 0.4897 191 ITERATIONS.

V	BETA	B
4	0.7147	0.9683
5	1.7368	1.0523
6	0.8856	0.7806
7	1.2938	1.0306
15	0.0	0.0
16	-0.2730	-0.4567
17	-0.0143	-0.0297
18	-0.2388	-0.4859
REG. CONST. =		1.0828

```
MODEL   4 M4  CRITERION =  1

PREDICTORS =  2- 2 16-18

R = 0.6977     RSQ = 0.4867          16 ITERATIONS.

  V       BETA        B
  2     0.6585     0.9933
 16    -0.1304    -0.2181
 17    -0.2124    -0.4414
 18    -0.1547    -0.3147
REG. CONST. =     1.0036


MODEL   5 M5  CRITERION =  1

PREDICTORS =  2- 2

R = 0.6854     RSQ = 0.4698          1 ITERATIONS.

  V       BETA        B
  2     0.6854     1.0340
REG. CONST. =     0.6291


F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =     0.4974     MODEL  1
RSQ REDUCED =  0.4973     MODEL  2
DIFFERENCE =   0.0001
DFN =  3.      DFD =  491.      F-RATIO =    0.039    P = 0.9892


F-TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =     0.4973     MODEL  2
RSQ REDUCED =  0.4897     MODEL  3
DIFFERENCE =   0.0075
DFN =  1.      DFD =  494.      F-RATIO =    7.403    P = 0.0068


F-TEST  3   MODEL 3 VS MODEL 4
RSQ FULL =     0.4897     MODEL  3
RSQ REDUCED =  0.4867     MODEL  4
DIFFERENCE =   0.0030
DFN =  3.      DFD =  495.      F-RATIO =    0.970    P = 0.4078


F-TEST  4   MODEL 4 VS MODEL 5
RSQ FULL =     0.4867     MODEL  4
RSQ REDUCED =  0.4698     MODEL  5
DIFFERENCE =   0.0169
DFN =  3.      DFD =  498.      F-RATIO =    5.479    P = 0.0014
```

*** OUTPUT FROM PROGRAM REGRAN ***

ANALYSIS 1 — ITBS-SWP VS TI VS FTI -- GRADE 5

PARAMETERS
COL 1- 5 = 10
COL 6-10 = 471
COL 11-15 = 5
COL 16-20 = 4
COL 21-25 = 1

DATA FORMAT = (DUMMY)

INTERCORRELATION ANALYSIS.

	1	2	3	4	5	6	7	8	9	10
MEANS	4.0331	3.1692	0.0	0.1766	1.6815	0.4724	0.8386	10.6296	0.0	0.6411
MEANS	11	12	13	14	15	16	17	18		
	5.8556	1.4042	2.7287	0.0	0.0510	0.5074	0.1720	0.2696		
SIGMAS	1	2	3	4	5	6	7	8	9	10
	0.9981	0.7653	-0.0	0.7810	1.7401	1.0868	1.4232	4.6686	-0.0	2.9309
SIGMAS	11	12	13	14	15	16	17	18		
	6.6699	3.5693	4.9553	-0.0	0.2199	0.4999	0.3774	0.4438		

R MATRIX	1	2	3	4	5	6	7	8	9	10
1	1.0000	0.7643	0.0	0.1929	0.3401	-0.1704	0.0193	0.7747	0.0	0.2077
2	0.7643	1.0000	0.0	0.1360	0.3953	-0.1117	0.0651	0.9885	0.0	0.1654
3	0.0	0.0	1.0000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.1929	0.1360	0.0	1.0000	-0.2186	-0.0983	-0.1333	0.1458	0.0	0.9862
5	0.3401	0.3953	0.0	-0.2186	1.0000	-0.4200	-0.5694	0.4053	0.0	-0.2078
6	-0.1704	-0.1117	0.0	-0.0983	-0.4200	1.0000	-0.2561	-0.1150	0.0	-0.0935
7	0.0193	0.0651	0.0	-0.1333	-0.5694	-0.2561	1.0000	0.0439	0.0	-0.1267
8	0.7747	0.9885	0.0	0.1458	0.4053	-0.1150	0.0439	1.0000	0.0	0.1783
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0000	0.0
10	0.2077	0.1654	0.0	0.9862	-0.2078	-0.0935	-0.1267	0.1783	0.0	1.0000
11	0.4370	0.5111	0.0	-0.1986	0.9753	-0.3816	-0.5173	0.5309	0.0	-0.1880
12	-0.0937	-0.0046	0.0	-0.0890	-0.3802	0.9730	-0.2318	-0.0120	0.0	-0.0946
13	0.0842	0.1472	0.0	-0.1246	-0.5321	-0.2394	0.9909	0.1295	0.0	-0.1184
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

15	0.1616	0.0901	0.0	0.9762	-0.2239	-0.1007	-0.1365	0.0969	0.0	0.9282
16	0.1808	0.1918	0.0	-0.2296	0.9521	-0.4412	-0.5981	0.1978	0.0	-0.2183
17	-0.2575	-0.2515	0.0	-0.1031	-0.4404	0.9538	-0.2686	-0.2406	0.0	-0.0980
18	-0.0647	-0.0468	0.0	-0.1374	-0.5871	-0.2641	0.9698	-0.0663	0.0	-0.1307

R MATRIX

	11	12	13	14	15	16	17	18
1	0.4370	-0.0937	0.0842	0.0	0.1616	0.1808	-0.2575	-0.0647
2	0.5111	-0.0046	0.1472	0.0	0.0901	0.1918	-0.2515	-0.0468
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	-0.1986	-0.0890	-0.1246	0.0	0.9762	-0.2296	-0.1031	-0.1374
5	0.9753	-0.3802	-0.5321	0.0	-0.2239	0.9521	-0.4404	-0.5871
6	-0.3816	0.9730	-0.2394	0.0	-0.1007	-0.4412	0.9538	-0.2641
7	-0.5173	-0.2318	0.9809	0.0	-0.1365	-0.5981	-0.2686	0.9698
8	0.5309	-0.0129	0.1295	0.0	0.0969	0.1978	-0.2406	-0.0663
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	-0.1888	-0.0846	-0.1184	0.0	0.9282	-0.2183	-0.0980	-0.1307
11	1.0000	-0.3454	-0.4834	0.0	-0.2034	0.8650	-0.4001	-0.5334
12	-0.3454	1.0000	-0.2166	0.0	-0.0912	-0.3993	0.8633	-0.2390
13	-0.4834	-0.2166	1.0000	0.0	-0.1276	-0.5589	-0.2510	0.9063
14	0.0	0.0	0.0	1.0000	0.0	0.0	0.0	0.0
15	-0.2034	-0.0912	-0.1276	0.0	1.0000	-0.2352	-0.1056	-0.1408
16	0.8650	-0.3993	-0.5589	0.0	-0.2352	1.0000	-0.4626	-0.6167
17	-0.4001	0.8633	-0.2510	0.0	-0.1056	-0.4626	1.0000	-0.2769
18	-0.5334	-0.2390	0.9063	0.0	-0.1408	-0.6167	0.2769	1.0000

MODEL 1 M1 CRITERION = 1

PREDICTORS = 4= 7 10=13 15=18

R = 0.7842 RSQ = 0.6149 85 ITERATIONS.

V	BETA	B
4	0.0816	0.1043
5	0.0	0.0
6	0.0	0.0
7	0.0	0.0
10	0.3942	0.1320
11	1.1242	0.1682
12	0.4933	0.1379
13	0.7845	0.1580
15	0.0402	0.1824
16	-0.1220	-0.2436
17	-0.0638	-0.1688
18	-0.0819	-0.1842
REG. CONST. =		2.5132

MODEL 2 M2 CRITERION = 1

PREDICTORS = 4= 8 15=18

R = 0.7837 RSQ = 0.6142 22 ITERATIONS.

V	BETA	B
4	-0.0274	-0.0350
5	0.0342	0.0196
6	-0.0986	-0.0905
7	0.0	0.0
8	0.7525	0.1609
15	0.1140	0.5176
16	-0.0042	-0.0083
17	0.0372	0.0983
18	0.0	0.0
REG. CONST. =		2.2999

MODEL 3 M3 CRITERION = 1

PREDICTORS = 4= 7 15=18

R = 0.7764 RSQ = 0.6028 165 ITERATIONS.

V	BETA	B
4	0.7429	0.9494
5	1.8375	1.0539
6	0.8086	0.7426
7	1.3264	0.9302
15	0.0	0.0
16	-0.3596	-0.7179
17	0.0	0.0
18	-0.1781	-0.4005
REG. CONST. =		1.4346

80.71

MODEL 4 M4 CRITERION = 1

PREDICTORS = 2- 2 15-18

R = 0.7731 RSQ = 0.5977 7 ITERATIONS.

V	BETA	B
2	0.7361	0.9599
15	0.0911	0.4134
16	0.0158	0.0315
17	-0.0614	-0.1624
18	-0.0273	-0.0614
REG. CONST. =		0.9984

MODEL 5 M5 CRITERION = 1

PREDICTORS = 2- 2

R = 0.7643 RSQ = 0.5841 1 ITERATIONS.

V	BETA	B
2	0.7643	0.9967
REG. CONST. =		0.8744

F-TEST 1 MODEL 1 VS MODEL 2
RSQ FULL = 0.6149 MODEL 1
RSQ REDUCED = 0.6142 MODEL 2
DIFFERENCE = 0.0007
DFN = 3. DFD = 459. F-RATIO = 0.274 P = 0.8452

F-TEST 2 MODEL 2 VS MODEL 3
RSQ FULL = 0.6142 MODEL 2
RSQ REDUCED = 0.6028 MODEL 3
DIFFERENCE = 0.0114
DFN = 1. DFD = 462. F-RATIO = 13.704 P = 0.0005

F-TEST 3 MODEL 3 VS MODEL 4
RSQ FULL = 0.6028 MODEL 3
RSQ REDUCED = 0.5977 MODEL 4
DIFFERENCE = 0.0051
DFN = 3. DFD = 463. F-RATIO = 1.964 P = 0.1171

F-TEST 4 MODEL 4 VS MODEL 5
RSQ FULL = 0.5977 MODEL 4
RSQ REDUCED = 0.5841 MODEL 5
DIFFERENCE = 0.0136
DFN = 3. DFD = 466. F-RATIO = 5.251 P = 0.0018

*** OUTPUT FROM PROGRAM REGRAN ***

ANALYSIS 1 -- ITBS-SMP VS TI VS FTI -- GRADE 6

PARAMETERS
COL 1- 5 = 18
COL 6-10 = 460
COL 11-15 = 5
COL 16-20 = 4
COL 21-25 = 1

DATA FORMAT = (DUMMY)

INTERCORRELATION ANALYSIS.

	1	2	3	4	5	6	7	8	9	10
MEANS	4.8133	3.9496	0.0	0.3946	1.6433	0.5978	1.3139	16.3392	0.0	1.6362
MEANS	11	12	13	14	15	16	17	18		
	6.9155	2.2839	5.5037	0.0	0.1000	0.4087	0.1652	0.3281		
SIGMAS	1	2	3	4	5	6	7	8	9	10
	1.0323	0.8603	-0.0	1.2168	2.0531	1.3880	1.9435	6.5904	-0.0	5.3640
SIGMAS	11	12	13	14	15	16	17	18		
	9.3796	5.7135	8.6605	-0.0	0.3000	0.4916	0.3714	0.4688		

R MATRIX	1	2	3	4	5	6	7	8	9	10
1	1.0000	0.7541	0.0	0.1141	0.1612	-0.0919	0.1578	0.7570	0.0	0.1500
2	0.7541	1.0000	0.0	0.0744	0.2408	-0.0647	0.1880	0.9907	0.0	0.1297
3	0.0	0.0	1.0000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.1141	0.0744	0.0	1.0000	-0.2595	-0.1397	-0.2192	0.0766	0.0	0.9829
5	0.1612	0.2408	0.0	-0.2595	1.0000	-0.3447	-0.5411	0.2470	0.0	-0.2441
6	-0.0919	-0.0647	0.0	-0.1397	-0.3447	1.0000	-0.2912	-0.0702	0.0	-0.1314
7	0.1578	0.1880	0.0	-0.2192	-0.5411	-0.2912	1.0000	0.1798	0.0	-0.2062
8	0.7570	0.9907	0.0	0.0766	0.2470	-0.0702	0.1798	1.0000	0.0	0.1334
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0000	0.0
10	0.1500	0.1297	0.0	0.9829	-0.2441	-0.1314	-0.2062	0.1334	0.0	1.0000
11	0.2492	0.3567	0.0	-0.2391	0.9777	-0.3176	-0.4984	0.3689	0.0	-0.2249
12	-0.0199	0.0215	0.0	-0.1296	-0.3199	0.9786	-0.2702	0.0144	0.0	-0.1219
13	0.2263	0.2730	0.0	-0.2061	-0.5086	-0.2737	0.9827	0.2693	0.0	-0.1938
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

1450

1470

80.71

D-139

310

311

15	0.0638	-0.0015	0.0	0.9728	-0.2668	-0.1436	-0.2253	0.0011	0.0	0.9151
16	0.0347	0.0688	0.0	-0.2696	0.9627	-0.3581	-0.5620	0.0734	0.0	-0.2536
17	-0.1736	-0.1712	0.0	-0.1443	-0.3561	0.9682	-0.3008	-0.1698	0.0	-0.1357
18	0.0602	0.0645	0.0	-0.2256	-0.5568	-0.2996	0.9719	0.0569	0.0	-0.2122

80.71

R MATRIX	11	12	13	14	15	16	17	18
1	0.2492	-0.0199	0.2263	0.0	0.0638	0.0347	-0.1736	0.0602
2	0.3567	0.0215	0.2730	0.0	-0.0015	0.0688	-0.1712	0.0645
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	-0.2391	-0.1296	-0.2061	0.0	0.9728	-0.2696	-0.1443	-0.2256
5	0.9777	-0.3199	-0.5086	0.0	-0.2668	0.9627	-0.3561	-0.5568
6	-0.3176	0.9786	-0.2737	0.0	-0.1436	-0.3581	0.9682	-0.2996
7	-0.4984	-0.2702	0.9827	0.0	-0.2253	-0.5620	-0.3008	0.9719
8	0.3689	0.0144	0.2693	0.0	0.0011	0.0734	-0.1698	0.0569
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	-0.2249	-0.1219	-0.1938	0.0	0.9151	-0.2536	-0.1357	-0.2122
11	1.0000	-0.2947	-0.4685	0.0	-0.2458	0.8868	-0.3280	-0.5129
12	-0.2947	1.0000	-0.2540	0.0	-0.1332	-0.3323	0.8985	-0.2781
13	-0.4685	-0.2540	1.0000	0.0	-0.2118	-0.5283	-0.2827	0.9136
14	0.0	0.0	0.0	1.0000	0.0	0.0	0.0	0.0
15	-0.2458	-0.1332	-0.2118	0.0	1.0000	-0.2771	-0.1483	-0.2319
16	0.8868	-0.3323	-0.5283	0.0	-0.2771	1.0000	-0.3699	-0.5783
17	-0.3280	0.8985	-0.2827	0.0	-0.1483	-0.3699	1.0000	-0.3095
18	-0.5129	-0.2781	0.9136	0.0	-0.2319	-0.5783	-0.3095	1.0000

D-140

312

MODEL 1 M1 CRITERION = 1

PREDICTORS = 4= 7 10=13 15=18

R = 0.7618 RSQ = 0.5803 97 ITERATIONS.

V	BETA	B
4	0.0490	0.0415
5	0.0	0.0
6	0.0	0.0
7	0.0	0.0
10	0.5586	0.1075
11	1.0377	0.1142
12	0.6901	0.1247
13	1.0164	0.1211
15	0.0401	0.1380
16	-0.0105	-0.0220
17	-0.0932	-0.2590
18	-0.0392	-0.0863
REG. CONST. =		2.9458

MODEL 2 M2 CRITERION = 1

PREDICTORS = 4= 8 15=18

R = 0.7619 RSQ = 0.5805 39 ITERATIONS.

V	BETA	B
4	-0.0729	-0.0618
5	0.0	0.0
6	0.0872	0.0649
7	0.0984	0.0523
8	0.7355	0.1152
15	0.1598	0.5498
16	0.0401	0.0842
17	-0.0852	-0.2368
18	-0.0314	-0.0692
REG. CONST. =		2.8201

MODEL 3 M3 CRITERION = 1

PREDICTORS = 4= 7 15=18

R = 0.7584 RSQ = 0.5752 208 ITERATIONS.

V	BETA	B
4	0.9778	0.8295
5	1.7517	0.8807
6	1.2655	0.9412
7	1.7341	0.9210
15	0.0	0.0
16	-0.1987	-0.4173
17	-0.2638	-0.7333
18	-0.2467	-0.5432
REG. CONST. =		1.7347

```
MODEL   4 M4  CRITERION =  1

PREDICTORS =  2= 2 15=18

R = 0.7579      RSQ = 0.5745          5 ITERATIONS.

  V       BETA        B
  2     0.7479     0.8974
 15     0.0644     0.2216
 16     0.0        0.0
 17    -0.0310    -0.0862
 18     0.0159     0.0350
REG. CONST. =     1.2497


MODEL   5 M5  CRITERION =  1

PREDICTORS =  2= 2

R = 0.7541      RSQ = 0.5687          1 ITERATIONS.

  V       BETA        B
  2     0.7541     0.9049
REG. CONST. =     1.2394


F=TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =     0.5803      MODEL  1
RSQ REDUCED =  0.5805      MODEL  2
DIFFERENCE =  -0.0001
DFN =  3.      DFD =  448.      F=RATIO =    0.0      P =  1.0000


F=TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =     0.5805      MODEL  2
RSQ REDUCED =  0.5752      MODEL  3
DIFFERENCE =   0.0053
DFN =  1.      DFD =  451.      F=RATIO =    5.647    P = 0.0170


F=TEST  3   MODEL 3 VS MODEL 4
RSQ FULL =     0.5752      MODEL  3
RSQ REDUCED =  0.5745      MODEL  4
DIFFERENCE =   0.0007
DFN =  3.      DFD =  452.      F=RATIO =    0.261    P = 0.8550


F=TEST  4   MODEL 4 VS MODEL 5
RSQ FULL =     0.5745      MODEL  4
RSQ REDUCED =  0.5687      MODEL  5
DIFFERENCE =   0.0057
DFN =  3.      DFD =  455.      F=RATIO =    2.048    P = 0.1049
```

REGRESSION ANALYSES COMPARING HIGH-ACHIEVING STUDENTS AT ALLISON AND BECKER SCHOOLWIDE PROJECTS AT GRADES 1-6.

ANALYSIS β -- ALLISON VS BECKER -- GRADE 1 -- > 40 0840

80.71

PARAMETERS
COL 1- 5 = 8
COL 6-10 = 64
COL 11-15 = 5
COL 16-20 = 4
COL 21-25 = 1

DATA FORMAT = (DUMMY) 0860

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8
	2.2500	55.5469	19.9375	35.6094	3119.6094	1117.0000	2002.6094	0.3594

SIGMAS	1	2	3	4	5	6	7	8
	0.7599	5.8441	26.8234	27.1032	666.9177	1536.2721	1599.5239	0.4798

R MATRIX	1	2	3	4	5	6	7	8
1	1.0000	0.5244	-0.1375	0.2492	0.5263	-0.0931	0.3088	-0.1821
2	0.5244	1.0000	0.0608	0.1554	0.9988	0.1270	0.2945	-0.0088
3	-0.1375	0.0608	1.0000	-0.9766	0.0553	0.9929	-0.9306	0.9924
4	0.2492	0.1554	-0.9766	1.0000	0.1607	-0.9553	0.9845	-0.9840
5	0.5263	0.9988	0.0553	0.1607	1.0000	0.1203	0.3014	-0.0128
6	-0.0931	0.1270	0.9929	-0.9553	0.1203	1.0000	-0.9103	0.9708
7	0.3088	0.2945	-0.9306	0.9845	0.3014	-0.9103	1.0000	-0.9377
8	-0.1821	-0.0088	0.9924	-0.9840	-0.0128	0.9708	-0.9377	1.0000

D-144

MODEL 1 M1 CRITERION = 1

PREDICTORS = 3= 4 6= 8

R = 0.5591 RSQ = 0.3126 71 ITERATIONS.

V	BETA	B
3	0.0	0.0
4	0.0	0.0
6	1.4163	0.0007
7	1.1655	0.0006
8	-0.4641	-0.7350
REG. CONST. =		0.6227

MODEL 2 M2 CRITERION = 1

PREDICTORS = 3= 5 8= 8

R = 0.5601 RSQ = 0.3137 50 ITERATIONS.

V	BETA	B
3	0.0	0.0
4	-0.7282	-0.0204
5	0.6318	0.0007
8	-0.8928	-1.4140
REG. CONST. =		1.2392

MODEL 3 M3 CRITERION = 1

PREDICTORS = 3= 4 8= 8

R = 0.5572 RSQ = 0.3104 176 ITERATIONS.

V	BETA	B
3	2.7001	0.0765
4	2.3030	0.0646
8	-0.5924	-0.9382
REG. CONST. =		-1.2374

MODEL 4 M4 CRITERION = 1

PREDICTORS = 2= 2 8= 8

R = 0.5536 RSQ = 0.3065 2 ITERATIONS.

V	BETA	B
2	0.5228	0.0680
8	-0.1775	-0.2812
REG. CONST. =		-1.4253

```
MODEL  5 M5  CRITERION =  1

PREDICTORS =  2= 2

R = 0.5244      RSQ = 0.2750          1 ITERATIONS.

  V       BETA         B
  2     0.5244     0.0682
REG. CONST. =     -1.5376

F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =     0.3126      MODEL  1
RSQ REDUCED = 0.3137       MODEL  2
DIFFERENCE = -0.0011
DFN =  1.      DFD =    58.      F-RATIO =    0.0      P = 1.0000

F-TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =     0.3137      MODEL  2
RSQ REDUCED = 0.3104       MODEL  3
DIFFERENCE =  0.0033
DFN =  1.      DFD =    59.      F-RATIO =    0.282    P = 0.6040

F-TEST  3   MODEL 3 VS MODEL 4
RSQ FULL =     0.3104      MODEL  3
RSQ REDUCED = 0.3065       MODEL  4
DIFFERENCE =  0.0039
DFN =  1.      DFD =    60.      F-RATIO =    0.342    P = 0.5680

F-TEST  4   MODEL 4 VS MODEL 5
RSQ FULL =     0.3065      MODEL  4
RSQ REDUCED = 0.2750       MODEL  5
DIFFERENCE =  0.0315
DFN =  1.      DFD =    61.      F-RATIO =    2.772    P = 0.0972
```

ANALYSIS 8 -- ALLISON VS BECKER -- GRADE 2 -- > 40 0960

80.71

PARAMETERS
COL 1- 5 = 8
COL 6-10 = 73
COL 11-15 = 5
COL 16-20 = 4
COL 21-25 = 1

DATA FORMAT = (DUMMY) 0980

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8
	2.8411	2.1055	0.6740	1.4315	4.6620	1.3773	3.2848	0.3425

SIGMAS	1	2	3	4	5	6	7	8
	0.9780	0.4786	0.9607	1.1116	2.4503	2.1583	3.2240	0.4745

R MATRIX	1	2	3	4	5	6	7	8
1	1.0000	0.6364	0.0563	0.2254	0.6229	0.1312	0.3856	-0.0185
2	0.6364	1.0000	-0.0909	0.5091	0.9839	0.0357	0.7239	-0.2073
3	0.0563	-0.0909	1.0000	-0.9034	-0.0872	0.9686	-0.7147	0.9720
4	0.2254	0.5091	-0.9034	1.0000	0.4990	-0.8218	0.9294	-0.9294
5	0.6229	0.9839	-0.0872	0.4990	1.0000	0.0254	0.7431	-0.1886
6	0.1312	0.0357	0.9686	-0.8218	0.0254	1.0000	-0.6502	0.8842
7	0.3856	0.7239	-0.7147	0.9294	0.7431	-0.6502	1.0000	-0.7353
8	-0.0185	-0.2073	0.9720	-0.9294	-0.1886	0.8842	-0.7353	1.0000

D-147

80.71

MODEL 1 M1. CRITERION = 1

PREDICTORS = 3= 4 6= 8

R = 0.6474 RSQ = 0.4192 396 ITERATIONS.

V	BETA	B
3	0.1142	0.1163
4	1.7421	1.5327
6	0.6344	0.2875
7	-0.1236	-0.0375
8	0.8376	1.7261
REG. CONST. =		-0.2953

MODEL 2 M2 CRITERION = 1

PREDICTORS = 3= 5 8= 8

R = 0.6471 RSQ = 0.4188 46 ITERATIONS.

V	BETA	B
3	1.6177	1.6467
4	1.7615	1.5498
5	-0.1104	-0.0441
8	0.0238	0.0490
REG. CONST. =		-0.2986

MODEL 3 M3 CRITERION = 1

PREDICTORS = 3= 4 8= 8

R = 0.6468 RSQ = 0.4183 11 ITERATIONS.

V	BETA	B
3	1.4038	1.4290
4	1.5070	1.3259
8	0.0175	0.0361
REG. CONST. =		-0.0323

MODEL 4 M4 CRITERION = 1

PREDICTORS = 2= 2 8= 8

R = 0.6469 RSQ = 0.4185 2 ITERATIONS.

V	BETA	B
2	0.6610	1.3508
8	0.1185	0.2443
REG. CONST. =		-0.0867

2

MODEL 5 MS CRITERION = 1

PREDICTORS = 2= 2

R = 0.6364 RSQ = 0.4051 4 ITERATIONS.

V	BETA	B
2	0.6364	1.3006
REG. CONST. =		0.1027

F-TEST 1 MODEL 1 VS MODEL 2
RSQ FULL = 0.4192 MODEL 1
RSQ REDUCED = 0.4188 MODEL 2
DIFFERENCE = 0.0004
DFN = 1. DFD = 67. F-RATIO = 0.042 P = 0.8327

F-TEST 2 MODEL 2 VS MODEL 3
RSQ FULL = 0.4188 MODEL 2
RSQ REDUCED = 0.4183 MODEL 3
DIFFERENCE = 0.0005
DFN = 1. DFD = 68. F-RATIO = 0.058 P = 0.8060

F-TEST 3 MODEL 3 VS MODEL 4
RSQ FULL = 0.4183 MODEL 3
RSQ REDUCED = 0.4185 MODEL 4
DIFFERENCE = -0.0002
DFN = 1. DFD = 69. F-RATIO = 0.0 P = 1.0000

F-TEST 4 MODEL 4 VS MODEL 5
RSQ FULL = 0.4185 MODEL 4
RSQ REDUCED = 0.4051 MODEL 5
DIFFERENCE = 0.0134
DFN = 1. DFD = 70. F-RATIO = 1.619 P = 0.2048

ANALYSIS 8 -- ALLISON VS BECKER -- GRADE 3 -- > 40 1080

80.71

PARAMETERS
COL 1-5 = 8
COL 6-10 = 47
COL 11-15 = 5
COL 16-20 = 4
COL 21-25 = 1

DATA FORMAT = (DUMMY) 1100

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8
	4.2532	3.1340	1.2149	1.9191	10.0491	3.9440	6.1051	0.3830

SIGMAS	1	2	3	4	5	6	7	8
	0.6250	0.4764	1.5710	1.5563	3.2581	5.3754	5.4661	0.4861

R MATRIX	1	2	3	4	5	6	7	8
1	1.0000	0.7286	0.2640	-0.0435	0.7280	0.3217	0.1176	0.1921
2	0.7286	1.0000	0.1824	0.1220	0.9956	0.2877	0.3105	0.0631
3	0.2640	0.1824	1.0000	-0.9536	0.1736	0.9835	-0.8637	0.9816
4	-0.0435	0.1220	-0.9536	1.0000	0.1295	-0.9048	0.9670	-0.9715
5	0.7280	0.9956	0.1736	0.1295	1.0000	0.2750	0.3256	0.0603
6	0.3217	0.2877	0.9835	-0.9048	0.2750	1.0000	-0.8195	0.9313
7	0.1176	0.3105	-0.8637	0.9670	0.3256	-0.8195	1.0000	-0.8799
8	0.1921	0.0631	0.9816	-0.9715	0.0603	0.9313	-0.8799	1.0000

D-150

MODEL 1 M1 CRITERION = 1

PREDICTORS = 3= 4 6= 8

R = 0.7446 RSQ = 0.5544 43 ITERATIONS.

V	BETA	B
3	0.0	0.0
4	0.0	0.0
6	1.0970	0.1275
7	1.2592	0.1440
8	0.2785	0.3581
REG. CONST. =		2.7341

MODEL 2 M2 CRITERION = 1

PREDICTORS = 3= 5 8= 8

R = 0.7450 RSQ = 0.5550 46 ITERATIONS.

V	BETA	B
3	0.0	0.0
4	0.3415	0.1371
5	0.6544	0.1255
8	0.4865	0.6254
REG. CONST. =		2.4890

MODEL 3 M3 CRITERION = 1

PREDICTORS = 3= 4 8= 8

R = 0.7467 RSQ = 0.5576 123 ITERATIONS.

V	BETA	B
3	2.1474	0.8543
4	2.5058	1.0063
8	0.5187	0.6668
REG. CONST. =		1.0288

MODEL 4 M4 CRITERION = 1

PREDICTORS = 2= 2 8= 8

R = 0.7432 RSQ = 0.5523 2 ITERATIONS.

V	BETA	B
2	0.7193	0.9437
8	0.1467	0.1885
REG. CONST. =		1.2233

```
MODEL  5 M5  CRITERION =  1

PREDICTORS =  2= 2

R = 0.7286      RSQ = 0.5309          1 ITERATIONS.

  V       BETA        B
  2     0.7286     0.9559
REG. CONST. =     1.2574


F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =     0.5544      MODEL  1
RSQ REDUCED = 0.5550       MODEL  2
DIFFERENCE = -0.0006
DFN =  1.      DFD =    41.      F-RATIO =    0.0      P = 1.0000


F-TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =     0.5550      MODEL  2
RSQ REDUCED = 0.5576       MODEL  3
DIFFERENCE = -0.0026
DFN =  1.      DFD =    42.      F-RATIO =    0.0      P = 1.0000


F-TEST  3   MODEL 3 VS MODEL 4
RSQ FULL =     0.5576      MODEL  3
RSQ REDUCED = 0.5523       MODEL  4
DIFFERENCE =   0.0053
DFN =  1.      DFD =    43.      F-RATIO =    0.517    P = 0.4828


F-TEST  4   MODEL 4 VS MODEL 5
RSQ FULL =     0.5523      MODEL  4
RSQ REDUCED = 0.5309       MODEL  5
DIFFERENCE =   0.0214
DFN =  1.      DFD =    44.      F-RATIO =    2.105    P = 0.1503
```

MODELS USED FOR EVALUATION QUESTION D2-3

Model 1: $$Y = a_0U + a_1X^{(3)} + a_2X^{(4)} + a_3X^{(5)} + a_4X^{(7)} + a_5X^{(8)} + a_6X^{(9)} + a_7X^{(10)} + a_8X^{(11)} + a_9X^{(12)} + E$$

Model 2: $$Y = a_{10}U + a_{11}X^{(3)} + a_{12}X^{(4)} + a_{13}X^{(5)} + a_{14}X^{(6)} + a_{15}X^{(10)} + a_{16}X^{(11)} + a_{17}X^{(12)} + E$$

Model 3: $$Y = a_{18}U + a_{19}X^{(3)} + a_{20}X^{(4)} + a_{21}X^{(5)} + a_{22}X^{(10)} + a_{23}X^{(11)} + a_{24}X^{(12)} + E$$

Model 4: $$Y = a_{25}U + a_{26}X^{(2)} + a_{27}X^{(10)} + a_{28}X^{(11)} + a_{29}X^{(12)} + E$$

Model 5: $$Y = a_{30}U + a_{31}X^{(2)} + E$$

Where,

- Y = posttest
- U = unit vector
- $X^{(2)}$ = pretest
- $X^{(3)}$ = pretest if group 1; 0, otherwise
- $X^{(4)}$ = pretest if group 2; 0, otherwise
- $X^{(5)}$ = pretest if group 3; 0, otherwise
- $X^{(6)}$ = variable 2 squared
- $X^{(7)}$ = variable 3 squared
- $X^{(8)}$ = variable 4 squared
- $X^{(9)}$ = variable 5 squared

$X^{(10)}$ = 1 if a member of group 1; 0, otherwise

$X^{(11)}$ = 1 if a member of group 2; 0, otherwise

$X^{(12)}$ = 1 if a member of group 3; 0, otherwise

The groups are defined below.

Group 1 = high-achieving students at Allison and Becker.

Group 2 = high-achieving students at Title I schools who are from a former Title I attendance area.

Group 3 = high-achieving students from former Title I schools.

REGRESSION ANALYSES COMPARING HIGH-ACHIEVING SCHOOLWIDE PROJECT STUDENTS AND HIGH-ACHIEVING STUDENTS FROM TRADITIONAL TITLE I ATTENDANCE AREAS WHO ATTEND TITLE I AND NON-TITLE I SCHOOLS, GRADES 1-6.

*** OUTPUT FROM PROGRAM REGRAN ***

ANALYSIS 3 -- SWP VS TI VS FTI -- GRADE 1 -- > 40 0950

PARAMETERS
COL 1- 5 = 12
COL 6-10 = 720
COL 11-15 = 5
COL 16-20 = 4
COL 21-25 = 1

DATA FORMAT = (DUMMY) 0970

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8	9	10
	2.4514	58.7333	4.9375	31.3222	22.4736	3497.5639	277.2986	1885.3778	1334.8875	0.0889
MEANS	11	12								
	0.5278	0.3833								
SIGMAS	1	2	3	4	5	6	7	8	9	10
	0.7920	6.9253	15.9034	30.0715	28.8067	847.4743	909.7828	1891.9039	1769.3763	0.2846
SIGMAS	11	12								
	0.4992	0.4862								

R MATRIX	1	2	3	4	5	6	7	8	9	10
1	1.0000	0.5327	-0.0625	0.0700	0.0895	0.5150	-0.0446	0.1282	0.1325	-0.0794
2	0.5327	1.0000	-0.1153	0.2195	0.0749	0.9945	-0.0853	0.3352	0.1618	-0.1437
3	-0.0625	-0.1153	1.0000	-0.3234	-0.2422	-0.1128	0.9939	-0.3094	-0.2342	0.9940
4	0.0700	0.2195	-0.3234	1.0000	-0.8126	0.2187	-0.3175	0.9856	-0.7858	-0.3253
5	0.0895	0.0749	-0.2422	-0.8126	1.0000	0.0730	-0.2378	-0.7775	0.9885	-0.2437
6	0.5150	0.9945	-0.1129	0.2187	0.0730	1.0000	-0.0847	0.3366	0.1626	-0.1393
7	-0.0446	-0.0853	0.9939	-0.3175	-0.2378	-0.0847	1.0000	-0.3037	-0.2300	0.9758
8	0.1282	0.3352	-0.3094	0.9856	-0.7775	0.3366	-0.3037	1.0000	-0.7518	-0.3113
9	0.1325	0.1618	-0.2342	-0.7858	0.9885	0.1626	-0.2300	-0.7518	1.0000	-0.2356
10	-0.0794	-0.1437	0.9940	-0.3253	-0.2437	-0.1393	0.9758	-0.3113	-0.2356	1.0000
11	0.0059	0.0937	-0.3282	0.9852	-0.8248	0.0932	-0.3222	0.9426	-0.7976	-0.3302
	0.0405	-0.0121	-0.2448	-0.8212	0.9995	-0.0142	-0.2403	-0.7857	0.9569	-0.2463

80.71

D-156

R MATRIX	11	12
1	0.0059	0.0405
2	0.0937	-0.0121
3	-0.3282	-0.2448
4	0.9852	-0.8212
5	-0.8248	0.9895
6	0.0932	-0.0142
7	-0.3222	-0.2403
8	0.9426	-0.7857
9	-0.7976	0.9569
10	-0.3302	-0.2463
11	1.0000	-0.8335
12	-0.8335	1.0000

MODEL 1 M1 CRITERION = 1

PREDICTORS = 3 5 7 12

R = 0.5197 RSQ = 0.2701 122 ITERATIONS.

V	BETA	B
3	0.0	0.0
4	0.1647	0.0043
5	0.1465	0.0040
7	0.6460	0.0006
8	1.0338	0.0004
9	1.0387	0.0005
10	-0.0566	-0.1576
11	0.0	0.0
12	-0.0096	-0.0157
REG. CONST. =		0.6525

MODEL 2 M2 CRITERION = 1

PREDICTORS = 3- 6 10-12

R = 0.5517 RSQ = 0.3044 783 ITERATIONS.

V	BETA	B
3	3.7089	0.1847
4	7.5198	0.1981
5	7.7535	0.2132
6	-1.2466	-0.0012
10	-0.1433	-0.3987
11	-0.7312	-1.1600
12	-1.2139	-1.9774
REG. CONST. =		-3.9745

MODEL 3 M3 CRITERION = 1

PREDICTORS = 3- 5 10-12

R = 0.5346 RSQ = 0.2858 493 ITERATIONS.

V	BETA	B
3	1.1116	0.0554
4	2.1230	0.0559
5	2.5200	0.0693
10	-0.5987	-1.6662
11	-1.0795	-1.7125
12	-1.4855	-2.4199
REG. CONST. =		0.8492

MODEL 4 M4 CRITERION = 1

PREDICTORS = 2- 2 10-12

R = 0.5348 RSQ = 0.2860 3 ITERATIONS.

V	BETA	B
2	0.5347	0.0612
10	0.0090	0.0251
11	0.0	0.0
12	0.0471	0.0766
REG. CONST. =		-1.1720

```
MODEL  5 MS  CRITERION =  1

PREDICTORS =  2- 2

R = 0.5327     RSQ = 0.2837          1 ITERATIONS.

  V       BETA        B
  2     0.5327     0.0609
REG. CONST. =    -1.1266


F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =     0.2701      MODEL  1
RSQ REDUCED = 0.3044       MODEL  2
DIFFERENCE = -0.0343
DFN =  2.      DFD =  711.      F-RATIO =    0.0      P = 1.0000


F-TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =     0.3044      MODEL  2
RSQ REDUCED = 0.2858       MODEL  3
DIFFERENCE =  0.0186
DFN =  1.      DFD =  713.      F-RATIO =  19.091     P = 0.0001


F-TEST  3   MODEL 3 VS MODEL 4
RSQ FULL =     0.2858      MODEL  3
RSQ REDUCED = 0.2860       MODEL  4
DIFFERENCE = -0.0003
DFN =  2.      DFD =  714.      F-RATIO =    0.0      P = 1.0000


F-TEST  4   MODEL 4 VS MODEL 5
RSQ FULL =     0.2860      MODEL  4
RSQ REDUCED = 0.2837       MODEL  5
DIFFERENCE =  0.0023
DFN =  2.      DFD =  716.      F-RATIO =    1.143    P = 0.3194
```

*** OUTPUT FROM PROGRAM REGRAN ***

ANALYSIS 3 -- SWP VS TI VS FTI -- GRADE 2 -- > 40

1070

80.71

PARAMETERS
COL 1- 5 = 12
COL 6-10 = 718
COL 11-15 = 5
COL 16-20 = 4
COL 21-25 = 1

DATA FORMAT = (DUMMY)

1090

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8	9	10
	3.1260	2.3422	0.2141	0.8838	1.2443	5.7989	0.4740	2.0686	3.2563	0.1017
MEANS	11	12								
	0.3955	0.5028								

SIGMAS	1	2	3	4	5	6	7	8	9	10
	0.8246	0.5595	0.2543	1.1347	1.3069	2.9130	1.6111	2.9696	3.9487	0.3022
SIGMAS	11	12								
	0.4890	0.5000								

R MATRIX	1	2	3	4	5	6	7	8	9	10
1	1.0000	0.6644	-0.0569	0.0052	0.3084	0.6546	0.0126	0.1041	0.3995	-0.1162
2	0.6644	1.0000	-0.0748	-0.0024	0.4676	0.9904	0.0057	0.1417	0.6217	-0.1423
3	-0.0569	-0.0748	1.0000	-0.2548	-0.3115	-0.0661	0.9617	-0.2279	-0.2698	0.9724
4	0.0052	-0.0024	-0.2548	1.0000	-0.7416	-0.0135	-0.2292	0.9652	-0.6424	-0.2621
5	0.3084	0.4676	-0.3115	-0.7416	1.0000	0.4689	-0.2801	-0.6632	0.9589	-0.3203
6	0.6546	0.9904	-0.0661	-0.0135	0.4689	1.0000	0.0152	0.1274	0.6357	-0.1313
7	0.0126	0.0057	0.9617	-0.2292	-0.2801	0.0152	1.0000	-0.2049	-0.2426	0.8745
8	0.1041	0.1417	-0.2279	0.9652	-0.6632	0.1274	-0.2049	1.0000	-0.5745	-0.2344
9	0.3995	0.6217	-0.2698	-0.6424	0.9589	0.6357	-0.2426	-0.5745	1.0000	-0.2774
10	-0.1162	-0.1423	0.9724	-0.2621	-0.3203	-0.1313	0.8745	-0.2344	-0.2774	1.0000
11	-0.0998	-0.1557	-0.2646	0.9629	-0.7702	-0.1580	-0.2380	0.8611	-0.6671	-0.2721
12	0.1679	0.2383	-0.3290	-0.7833	0.9468	0.2339	-0.2959	-0.7005	0.8201	-0.3383

D-190

R MATRIX	11	12
1	-0.0998	0.1679
2	-0.1557	0.2383
3	-0.2646	-0.3290
4	0.9629	-0.7833
5	-0.7702	0.9468
6	-0.1580	0.2339
7	-0.2380	-0.2959
8	0.8611	-0.7005
9	-0.6671	0.8201
10	-0.2721	-0.3383
11	1.0000	-0.8135
12	-0.8135	1.0000

MODEL 1 M1 CRITERION = 1

PREDICTORS = 3- 5, 7-12

R = 0.6630 RSQ = 0.4396 204 ITERATIONS.

V	BETA	B
3	0.1058	0.1334
4	0.1249	0.0908
5	0.3290	0.2076
7	0.4322	0.2212
8	0.6793	0.1886
9	0.6155	0.1285
10	-0.0746	-0.2037
11	0.0604	0.1019
12	0.1122	0.1851
REG. CONST. =		1.7327

MODEL 2 MZ CRITERION = 1

PREDICTORS = 3= 6 10=12

R = 0.6678 RSQ = 0.4460 428 ITERATIONS.

V	BETA	B
3	0.9661	1.2174
4	1.1841	0.8606
5	1.1554	0.7290
6	0.1092	0.0309
10	-0.6992	-1.9079
11	-0.6495	-1.0954
12	-0.4711	-0.7770
REG. CONST. =		2.0365

MODEL 3 M3 CRITERION = 1

PREDICTORS = 3= 5 10=12

R = 0.6683 RSQ = 0.4466 180 ITERATIONS.

V	BETA	B
3	0.9787	1.2334
4	1.3826	1.0048
5	1.4701	0.9276
10	-0.4445	-1.2128
11	-0.4070	-0.6863
12	-0.3014	-0.4971
REG. CONST. =		1.4645

MODEL 4 M4 CRITERION = 1

PREDICTORS = 2= 2 10=12

R = 0.6648 RSQ = 0.4419 2 ITERATIONS.

V	BETA	B
2	0.6613	0.9746
10	-0.0221	-0.0604
11	0.0	0.0
12	0.0	0.0
REG. CONST. =		0.8495

```
MODEL   5 M5  CRITERION =  1

PREDICTORS =  2= 2

R = 0.6644      RSQ = 0.4414          1 ITERATIONS.

  V       BETA        8
  2     0.6644     0.9792
REG. CONST. =      0.8325


F-TEST  1    MODEL 1 VS MODEL 2
RSQ FULL =     0.4396      MODEL  1
RSQ REDUCED =  0.4460      MODEL  2
DIFFERENCE = -0.0064
DFN =  2.      DFD =  709.      F-RATIO =    0.0      P = 1.0000


F-TEST  2    MODEL 2 VS MODEL 3
RSQ FULL =     0.4460      MODEL  2
RSQ REDUCED =  0.4466      MODEL  3
DIFFERENCE = -0.0006
DFN =  1.      DFD =  711.      F-RATIO =    0.0      P = 1.0000


F-TEST  3    MODEL 3 VS MODEL 4
RSQ FULL =     0.4466      MODEL  3
RSQ REDUCED =  0.4419      MODEL  4
DIFFERENCE =   0.0047
DFN =  2.      DFD =  712.      F-RATIO =    3.002    P = 0.0488


F-TEST  4    MODEL 4 VS MODEL 5
RSQ FULL =     0.4419      MODEL  4
RSQ REDUCED =  0.4414      MODEL  5
DIFFERENCE =   0.0005
DFN =  2.      DFD =  714.      F-RATIO =    0.307    P = 0.7405
```

*** OUTPUT FROM PROGRAM REGRAN ***

ANALYSIS 3 -- SWP VS TI VS FTI -- GRADE 3 -- > 40 1190

PARAMETERS
COL 1- 5 = 12
COL 6-10 = 623
COL 11-15 = 5
COL 16-20 = 4
COL 21-25 = 1

DATA FORMAT = (DUMMY) 1210

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8	9	10
	4.2019	3.3754	0.2364	1.4509	1.6881	11.7818	0.7581	5.0628	5.9609	0.0754
MEANS	11	12								
	0.4302	0.4944								
SIGMAS	1	2	3	4	5	6	7	8	9	10
	0.8454	0.6231	0.8380	1.7198	1.7638	4.6180	2.8008	6.5814	6.8730	0.2641
SIGMAS	11	12								
	0.4951	0.5000								

R MATRIX	1	2	3	4	5	6	7	8	9	10
1	1.0000	0.7129	0.0402	0.0977	0.1375	0.7023	0.0636	0.1975	0.2568	0.0173
2	0.7129	1.0000	-0.0765	0.1544	0.2391	0.9937	-0.0381	0.3016	0.3944	-0.1107
3	0.0402	-0.0765	1.0000	-0.2380	-0.2700	-0.0757	0.9856	-0.2170	-0.2447	0.9877
4	0.0977	0.1544	-0.2380	1.0000	-0.8074	0.1551	-0.2284	0.9701	-0.7317	-0.2410
5	0.1375	0.2391	-0.2700	-0.8074	1.0000	0.2358	-0.2591	-0.7362	0.9690	-0.2734
6	0.7023	0.9937	-0.0757	0.1551	0.2358	1.0000	-0.0396	0.3059	0.3951	-0.1072
7	0.0636	-0.0381	0.9856	-0.2284	-0.2591	-0.0396	1.0000	-0.2082	-0.2348	0.9476
8	0.1975	0.3016	-0.2170	0.9701	-0.7362	0.3059	-0.2082	1.0000	-0.6672	-0.2197
9	0.2568	0.3944	-0.2447	-0.7317	0.9690	0.3951	-0.2348	-0.6672	1.0000	-0.2477
10	0.0173	-0.1107	0.9877	-0.2410	-0.2734	-0.1072	0.9476	-0.2197	-0.2477	1.0000
11	-0.0116	-0.0037	-0.2451	0.9710	-0.8316	-0.0024	-0.2352	0.8854	-0.7536	-0.2482
12	0.0023	0.0622	-0.2790	-0.8342	0.9679	0.0590	-0.2677	-0.7607	0.8771	-0.2825

80.71

D-164

R MATRIX 11 12

80.71

1	-0.0116	0.0023
2	-0.0037	0.0622
3	-0.2451	-0.2790
4	0.9710	-0.8342
5	-0.8316	0.9679
6	-0.0024	0.0590
7	-0.2352	-0.2677
8	0.8854	-0.7607
9	-0.7536	0.8771
10	-0.2482	-0.2825
11	1.0000	-0.8592
12	-0.8592	1.0000

MODEL 1 M1 CRITERION = 1

PREDICTORS = 3- 5 7-12

R = 0.7108 RSQ = 0.5053 149 ITERATIONS.

V	BETA	B
3	0.0	0.0
4	0.2033	0.0999
5	0.1906	0.0914
7	0.4676	0.1411
8	0.8615	0.1107
9	1.0047	0.1236
10	0.0868	0.2778
11	0.0	0.0
12	-0.0866	-0.1464
REG. CONST. =		2.5503

MODEL 2 M2 CRITERION = 1

PREDICTORS = 3- 6 10-12

R = 0.7225 RSQ = 0.5220 337 ITERATIONS.

V	BETA	B
3	1.5450	1.5586
4	3.1063	1.5269
5	3.4726	1.6643
6	-0.4574	-0.0837
10	0.0	0.0
11	-0.1078	-0.1840
12	-0.4021	-0.6800
REG. CONST. =		0.2104.

MODEL 3 M3 CRITERION = 1

PREDICTORS = 3- 5 10-12

R = 0.7197 RSQ = 0.5179 272 ITERATIONS.

V	BETA	B
3	0.7766	0.7834
4	1.8687	0.9185
5	2.1892	1.0492
10	-0.4834	-1.5473
11	-1.3236	-2.2599
12	-1.6148	-2.7304
REG. CONST. =		3.3515

MODEL 4 M4 CRITERION = 1

PREDICTORS = 2- 2 10-12

R = 0.7196 RSQ = 0.5178 4 ITERATIONS.

V	BETA	B
2	0.7241	0.9825
10	0.1015	0.3248
11	0.0160	0.0273
12	0.0	0.0
REG. CONST. =		.0.8493

```
MODEL   5 M5  CRITERION =  1

PREDICTORS =  2= 2

R = 0.7129      RSQ = 0.5082          1 ITERATIONS.

  V       BETA        B
  2     0.7129     0.9672
REG. CONST. =      0.9372


F-TEST  1    MODEL 1 VS MODEL 2
RSQ FULL =      0.5053      MODEL  1
RSQ REDUCED =  0.5220       MODEL  2
DIFFERENCE = -0.0168
DFN =  2.       DFD =  614.      F-RATIO =    0.0      P = 1.0000


F-TEST  2    MODEL 2 VS MODEL 3
RSQ FULL =      0.5220      MODEL  2
RSQ REDUCED =  0.5179       MODEL  3
DIFFERENCE =   0.0041
DFN =  1.       DFD =  616.      F-RATIO =    5.278    P = 0.0207


F-TEST  3    MODEL 3 VS MODEL 4
RSQ FULL =      0.5179      MODEL  3
RSQ REDUCED =  0.5178       MODEL  4
DIFFERENCE =   0.0001
DFN =  2.       DFD =  617.      F-RATIO =    0.086    P = 0.9170


F-TEST  4    MODEL 4 VS MODEL 5
RSQ FULL =      0.5178      MODEL  4
RSQ REDUCED =  0.5082       MODEL  5
DIFFERENCE =   0.0096
DFN =  2.       DFD =  619.      F-RATIO =    6.176    P = 0.0026
```

*** OUTPUT FROM PROGRAM REGRAN ***

ANALYSIS 3 -- SWP VS TI VS FTI -- GRADE 4 -- > 40 1310

PARAMETERS
COL 1- 5 = 12
COL 6-10 = 527
COL 11-15 = 5
COL 16-20 = 4
COL 21-25 = 1

DATA FORMAT = (DUMMY) 1330

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8	9	10
	5.4833	4.4512	0.2150	1.4901	2.7461	20.2226	0.9159	6.7752	12.5314	0.0512
MEANS	11	12								
	0.3340	0.6148								
SIGMAS	1	2	3	4	5	6	7	8	9	10
	1.0668	0.6396	0.9326	2.1342	2.2339	5.9765	4.0730	10.1237	11.0369	0.2205
SIGMAS	11	12								
	0.4716	0.4866								

R MATRIX

	1	2	3	4	5	6	7	8	9	10
1	1.0000	0.7579	-0.0428	0.1248	0.1156	0.7572	-0.0283	0.1958	0.2408	-0.0561
2	0.7579	1.0000	-0.0688	0.1043	0.2155	0.9971	-0.0435	0.1923	0.3796	-0.0926
3	-0.0428	-0.0688	1.0000	-0.1610	-0.2834	-0.0689	0.9917	-0.1543	-0.2618	0.9921
4	0.1248	0.1043	-0.1610	1.0000	-0.8583	0.0995	-0.1570	0.9862	-0.7928	-0.1623
5	0.1156	0.2155	-0.2834	-0.8583	1.0000	0.2192	-0.2764	-0.8227	0.9753	-0.2857
6	0.7572	0.9971	-0.0689	0.0995	0.2192	1.0000	-0.0449	0.1881	0.3856	-0.0912
7	-0.0283	-0.0435	0.9917	-0.1570	-0.2764	-0.0449	1.0000	-0.1505	-0.2553	0.9677
8	0.1958	0.1923	-0.1543	0.9862	-0.8227	0.1881	-0.1505	1.0000	-0.7599	-0.1555
9	0.2408	0.3796	-0.2618	-0.7928	0.9753	0.3856	-0.2553	-0.7599	1.0000	-0.2638
10	-0.0561	-0.0926	0.9921	-0.1623	-0.2857	-0.0912	0.9677	-0.1555	-0.2638	1.0000
11	0.0499	0.0118	-0.1632	0.9860	-0.8705	0.0077	-0.1592	0.9451	-0.8040	-0.1646
12	-0.0230	0.0305	-0.2912	-0.8821	0.9730	0.0339	-0.2841	-0.8455	0.8981	-0.2936

80-71

D-168

80.71

R MATRIX	11	12
1	0.0499	-0.0230
2	0.0118	0.0305
3	-0.1632	-0.2912
4	0.9860	-0.8821
5	-0.8705	0.9730
6	0.0077	0.0339
7	-0.1592	-0.2841
8	0.9451	-0.8455
9	-0.8040	0.8987
10	-0.1646	-0.2936
11	1.0000	-0.8946
12	-0.8946	1.0000

MODEL 1 M1. CRITERION = 1

PREDICTORS = 3- 5 7-12

R = 0.7600 RSQ = 0.5777 41 ITERATIONS.

V	BETA	B
3	0.0	0.0
4	0.0	0.0
5	0.0	0.0
7	0.4613	0.1208
8	1.3654	0.1439
9	1.3682	0.1322
10	0.0615	0.2977
11	-0.0538	-0.1217
12	0.0	0.0
REG. CONST. =		2.7661

MODEL 2 M2 CRITERION = 1

PREDICTORS = 3- 6 10-12

R = 0.7598 RSQ = 0.5773 51 ITERATIONS.

V	BETA	B
3	-0.1881	-0.2152
4	0.0	0.0
5	-0.2561	-0.1223
6	0.8110	0.1448
10	0.1645	0.7957
11	-0.0522	-0.1180
12	0.1461	0.3202
REG. CONST. =		2.7397

D-169

MODEL 3 M3 CRITERION = 1

PREDICTORS = 3- 5 10-12

R = 0.7603 RSQ = 0.5780 345 ITERATIONS.

V	BETA	B
3	0.5993	0.6856
4	2.8327	1.4159
5	2.5466	1.2161
10	-0.2983	-1.4433
11	-2.0147	-4.5571
12	-1.7181	-3.7663
REG. CONST. =		3.7979

MODEL 4 M4 CRITERION = 1

PREDICTORS = 2- 2 10-12

R = 0.7593 RSQ = 0.5766 2 ITERATIONS.

V	BETA	B
2	0.7594	1.2665
10	0.0	0.0
11	0.0	0.0
12	-0.0461	-0.1011
REG. CONST. =		-0.0919

```
MODEL   5 M5  CRITERION =  1

PREDICTORS =  2- 2

R = 0.7579      RSQ = 0.5745          1 ITERATIONS.

  V       BETA        B
  2     0.7579     1.2641
REG. CONST. =    -0.1436.


F-TEST  1    MODEL 1 VS MODEL 2
RSQ FULL =     0.5777      MODEL  1
RSQ REDUCED =  0.5773      MODEL  2
DIFFERENCE =   0.0004
DFN =   2.     DFD =   518.      F-RATIO =   0.217    P = 0.8072


F-TEST  2    MODEL 2 VS MODEL 3
RSQ FULL =     0.5773      MODEL  2
RSQ REDUCED =  0.5780      MODEL  3
DIFFERENCE =  -0.0007
DFN =   1.     DFD =   520.      F-RATIO =    0.0     P = 1.0000


F-TEST  3    MODEL 3 VS MODEL 4
RSQ FULL =     0.5780      MODEL  3
RSQ REDUCED =  0.5766      MODEL  4
DIFFERENCE =   0.0014
DFN =   2.     DFD =   521.      F-RATIO =    0.866    P = 0.4244


F-TEST  4    MODEL 4 VS MODEL 5
RSQ FULL =     0.5766      MODEL  4
RSQ REDUCED =  0.5745      MODEL  5
DIFFERENCE =   0.0021
DFN =   2.     DFD =   523.      F-RATIO =    1.314    P = 0.2688
```

*** OUTPUT FROM PROGRAM REGRAN ***

ANALYSIS 3 -- SMP VS TE VS FTT -- GRADE 5 -- > 40

1430

80.71

PARAMETERS
COL 1- 5 = 12
COL 6-10 = 400
COL 11-15 = 5
COL 16-20 = 4
COL 21-25 = 1

DATA FORMAT = (DUMMY)

1450

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8	9	10
	6.7972	5.7157	0.1747	2.1335	3.4075	33.4186	0.9663	12.7106	19.7416	0.0325
MEANS	11	12								
	0.3675	0.6000								
SIGMAS	1	2	3	4	5	6	7	8	9	10
	1.1530	0.8653	0.9674	2.8564	2.8514	10.4755	5.6409	18.0964	17.7485	0.1773
SIGMAS	11	12								
	0.4821	0.4899								

D-172

R MATRIX	1	2	3	4	5	6	7	8	9	10
1	1.0000	0.8194	0.0456	0.1705	0.0624	0.8192	0.0726	0.2706	0.1845	0.0200
2	0.8194	1.0000	-0.0388	0.2088	0.1075	0.9965	-0.0001	0.3277	0.2541	-0.0718
3	0.0456	-0.0388	1.0000	-0.1349	-0.2159	-0.0313	0.9812	-0.1269	-0.2009	0.9856
4	0.1705	0.2088	-0.1349	1.0000	-0.8926	0.2167	-0.1280	0.9801	-0.8308	-0.1369
5	0.0624	0.1075	-0.2159	-0.8926	1.0000	0.0960	-0.2047	-0.8394	0.9775	-0.2190
6	0.8192	0.9965	-0.0313	0.2167	0.0960	1.0000	0.0078	0.3390	0.2421	-0.0645
7	0.0726	-0.0001	0.9812	-0.1280	-0.2047	0.0078	1.0000	-0.1203	-0.1905	0.9347
8	0.2706	0.3277	-0.1269	0.9801	-0.8394	0.3390	-0.1203	1.0000	-0.7813	-0.1287
9	0.1845	0.2541	-0.2009	-0.8308	0.9775	0.2421	-0.1905	-0.7813	1.0000	-0.2039
10	0.0200	-0.0718	0.9856	-0.1369	-0.2190	-0.0645	0.9347	-0.1287	-0.2039	1.0000
11	0.0616	0.0790	-0.1377	0.9799	-0.9109	0.0850	-0.1306	0.9215	-0.8479	-0.1397
12	-0.0479	-0.0518	-0.2212	-0.9148	0.9757	-0.0603	-0.2098	-0.8602	0.9082	-0.2245

80.71

R MATRIX	11	12
1	0.0616	-0.0679
2	0.0790	-0.0518
3	-0.1377	-0.2212
4	0.9799	-0.9148
5	-0.9109	0.9757
6	0.0850	-0.0603
7	-0.1306	-0.2098
8	0.9215	-0.8602
9	-0.8479	0.9082
10	-0.1397	-0.2245
11	1.0000	-0.9336
12	-0.9336	1.0000

MODEL 1 M1 CRITERION = 1

PREDICTORS = 3- 5 7-12

R = 0.8224 RSQ = 0.6764 25 ITERATIONS.

V	BETA	B
3	0.0	0.0
4	0.0	0.0
5	0.0	0.0
7	0.4497	0.0919
8	1.4234	0.0907
9	1.3939	0.0906
10	0.0671	0.4362
11	0.0	0.0
12	0.0	0.0
REG. CONST. =		3.7538

MODEL 2 M2 CRITERION = 1

PREDICTORS = 3- 6 10-12

R = 0.8225 RSQ = 0.6764 2 ITERATIONS.

V	BETA	B
3	0.0	0.0
4	0.0	0.0
5	0.0	0.0
6	0.8239	0.0907
10	0.0731	0.4755
11	0.0	0.0
12	0.0	0.0
REG. CONST. =		3.7511

MODEL 3 M3 CRITERION = 1

PREDICTORS = 3= 5 10=12

R = 0.8227 RSQ = 0.6768 317 ITERATIONS.

V	BETA	B
3	0.7449	0.8879
4	2.8432	1.1477
5	2.6411	1.0680
10	-0.3860	-2.5097
11	-1.8575	-4.4423
12	-1.7006	-4.0024
REG. CONST. =		4.6700

MODEL 4 M4 CRITERION = 1

PREDICTORS = 2= 2 10=12

R = 0.8233 RSQ = 0.6778 3 ITERATIONS.

V	BETA	B
2	0.8246	1.0987
10	0.0792	0.5148
11	0.0075	0.0180
12	0.0	0.0
REG. CONST. =		0.4937

```
MODEL  5 M5  CRITERION =  1

PREDICTORS =  2= 2

R = 0.8194     RSQ = 0.6715          1 ITERATIONS.

  V      BETA        B
  2     0.8194     1.0918
REG. CONST. =      0.5566


F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =     0.6764      MODEL  1
RSQ REDUCED = 0.6764       MODEL  2
DIFFERENCE = -0.0000
DFN =  2.      DFD =  391.      F-RATIO =    0.0      P = 1.0000


F-TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =     0.6764      MODEL  2
RSQ REDUCED = 0.6768       MODEL  3
DIFFERENCE = -0.0004
DFN =  1.      DFD =  393.      F-RATIO =    0.0      P = 1.0000


F-TEST  3   MODEL 3 VS MODEL 4
RSQ FULL =     0.6768      MODEL  3
RSQ REDUCED = 0.6778       MODEL  4
DIFFERENCE = -0.0009
DFN =  2.      DFD =  394.      F-RATIO =    0.0      P = 1.0000


F-TEST  4   MODEL 4 VS MODEL 5
RSQ FULL =     0.6778      MODEL  4
RSQ REDUCED = 0.6715       MODEL  5
DIFFERENCE =  0.0063
DFN =  2.      DFD =  396.      F-RATIO =    3.871    P = 0.0211
```

ANALYSIS 3 -- SMP VS TI VS FTI -- GRADE 6 -- > 40 1550

PARAMETERS
COL 1- 5 = 12
COL 6-10 = 411
COL 11-15 = 5
COL 16-20 = 4
COL 21-25 = 1

DATA FORMAT = (DUMMY) 1570

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8	9	10
	7.7691	6.6820	0.2433	2.6350	3.8036	45.7337	1.5427	18.6973	25.4937	0.0389
MEANS	11	12								
	0.3820	0.5791								
SIGMAS	1	2	3	4	5	6	7	8	9	10
	1.3557	1.0415	1.2180	3.4284	3.3205	15.4384	1.9428	26.1745	24.0795	0.1934
SIGMAS	11	12								
	0.4859	0.4937								

R MATRIX	1	2	3	4	5	6	7	8	9	10
1	1.0000	0.8713	-0.0113	0.2622	0.0067	0.8626	0.0072	0.3783	0.1395	-0.0270
2	0.8713	1.0000	-0.0655	0.3053	0.0225	0.9955	-0.0432	0.4363	0.1783	-0.0835
3	-0.0113	-0.0655	1.0000	-0.1535	-0.2288	-0.0626	0.9898	-0.1427	-0.2115	0.9925
4	0.2622	0.3053	-0.1535	1.0000	-0.8804	0.3083	-0.1493	0.9757	-0.8137	-0.1547
5	0.0067	0.0225	-0.2288	-0.8804	1.0000	0.0169	-0.2225	-0.8183	0.9737	-0.2305
6	0.8626	0.9955	-0.0626	0.3083	0.0169	1.0000	-0.0415	0.4445	0.1717	-0.0796
7	0.0072	-0.0432	0.9898	-0.1493	-0.2225	-0.0415	1.0000	-0.1387	-0.2056	0.9651
8	0.3783	0.4363	-0.1427	0.9757	-0.8183	0.4445	-0.1387	1.0000	-0.7563	-0.1438
9	0.1395	0.1783	-0.2115	-0.8137	0.9737	0.1717	-0.2056	-0.7563	1.0000	-0.2131
10	-0.0270	-0.0835	0.9925	-0.1547	-0.2305	-0.0796	0.9651	-0.1438	-0.2131	1.0000
11	0.1339	0.1631	-0.1571	0.9776	-0.9006	0.1636	-0.1527	0.9086	-0.8324	-0.1582
12	-0.1212	-0.1278	-0.2343	-0.9015	0.9766	-0.1278	-0.2278	-0.8378	0.9027	-0.2361

R MATRIX	11	12
1	0.1339	-0.1212
2	0.1631	-0.1278
3	-0.1571	-0.2343
4	0.9776	-0.9015
5	-0.9006	0.9766
6	0.1636	-0.1298
7	-0.1527	-0.2278
8	0.9086	-0.8378
9	-0.8324	0.9027
10	-0.1582	-0.2361
11	1.0000	-0.9221
12	-0.9221	1.0000

MODEL 1 M1 CRITERION = 1

PREDICTORS = 3- 5 7-12

R = 0.8638 RSQ = 0.7461 5 ITERATIONS.

V	BETA	B
3	0.0129	0.0144
4	0.0	0.0
5	0.0569	0.0232
7	0.4809	0.0821
8	1.4818	0.0767
9	1.3035	0.0734
10	0.0	0.0
11	0.0	0.0
12	0.0	0.0
REG. CONST. =		4.2447

MODEL 2 M2 CRITERION = 1

PREDICTORS = 3- 6 10-12

R = 0.8637 RSQ = 0.7459 2 ITERATIONS.

V	BETA	B
3	0.0429	0.0477
4	0.0	0.0
5	0.0	0.0
6	0.8653	0.0760
10	0.0	0.0
11	0.0	0.0
12	0.0	0.0
REG. CONST. =		4.2825

MODEL 3 M3 CRITERION = 1

PREDICTORS = 3- 5 10-12

R = 0.8721 RSQ = 0.7606 377 ITERATIONS.

V	BETA	B
3	0.7725	0.8598
4	3.0327	1.1992
5	2.6581	1.0852
10	-0.6061	-4.2479
11	-2.4159	-6.7406
12	-2.1735	-5.9682
REG. CONST. =		6.4686

MODEL 4 M4 CRITERION = 1

PREDICTORS = 2- 2 10-12

R = 0.8726 RSQ = 0.7614 2 ITERATIONS.

V	BETA	B
2	0.8752	1.1392
10	0.0461	0.3231
11	0.0	0.0
12	0.0	0.0
REG. CONST. =		0.1442

361

```
MODEL   5 MS  CRITERION =  1

PREDICTORS =  2= 2

R = 0.8713      RSQ = 0.7592          1 ITERATIONS.

  V       BETA        B
  2     0.8713     1.1342
REG. CONST. =     0.1902


F-TEST  1    MODEL 1 VS MODEL 2
RSQ FULL =      0.7461      MODEL  1
RSQ REDUCED =  0.7459      MODEL  2
DIFFERENCE =   0.0001
DFN =  2.      DFD =  402.      F-RATIO =    0.099    P = 0.9050


F-TEST  2    MODEL 2 VS MODEL 3
RSQ FULL =      0.7459      MODEL  2
RSQ REDUCED =  0.7606      MODEL  3
DIFFERENCE =  -0.0147
DFN =  1.      DFD =  404.      F-RATIO =    0.0      P = 1.0000


F-TEST  3    MODEL 3 VS MODEL 4
RSQ FULL =      0.7606      MODEL  3
RSQ REDUCED =  0.7614      MODEL  4
DIFFERENCE =  -0.0007
DFN =  2.      DFD =  405.      F-RATIO =    0.0      P = 1.0000


F-TEST  4    MODEL 4 VS MODEL 5
RSQ FULL =      0.7614      MODEL  4
RSQ REDUCED =  0.7592      MODEL  5
DIFFERENCE =   0.0021
DFN =  2.      DFD =  407.      F-RATIO =    1.800    P = 0.1645
```

REGRESSION ANALYSES COMPARING RAINBOW KIT PARTICIPANTS AND CONTROL STUDENTS AT GRADES 1-6.

ANALYSIS 4 -- RAINBOW KIT -- GRADE 1 0940

80.71

PARAMETERS
COL 1- 5 = 8
COL 6-10 = 102
COL 11-15 = 5
COL 16-20 = 4
COL 21-25 = 1

DATA FORMAT = (DUMMY) 0960

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8
	1.4961	34.7157	15.7059	19.0098	1266.8333	603.1176	663.7157	0.4314

SIGMAS	1	2	3	4	5	6	7	8
	0.5959	7.8520	18.8797	17.3880	521.8474	783.1905	677.8894	0.4953

R MATRIX	1	2	3	4	5	6	7	8
1	1.0000	0.3547	0.4037	-0.2782	0.3451	0.4605	-0.2663	0.2848
2	0.3547	1.0000	0.3904	0.0277	0.9890	0.4941	0.1905	0.1878
3	0.4037	0.3904	1.0000	-0.9095	0.4140	0.9809	-0.8145	0.9551
4	-0.2782	0.0277	-0.9095	1.0000	-0.0030	-0.8419	0.9704	-0.9522
5	0.3451	0.9890	0.4140	-0.0030	1.0000	0.5214	0.1674	0.2192
6	0.4605	0.4941	0.9809	-0.8419	0.5214	1.0000	-0.7540	0.8841
7	-0.2663	0.1905	-0.8145	0.9704	0.1674	-0.7540	1.0000	-0.8528
8	0.2848	0.1878	0.9551	-0.9522	0.2192	0.8841	-0.8528	1.0000

D-182

MODEL 1 M1 CRITERION = 1

PREDICTORS = 3= 4 6= 8

R = 0.5623 RSQ = 0.3161 396 ITERATIONS.

V	BETA	B
3	0.7090	0.0224
4	4.6631	0.1598
6	0.5238	0.0004
7	-2.8045	-0.0025
8	1.1905	1.4323
REG. CONST. =		-1.1153

MODEL 2 M2 CRITERION = 1

PREDICTORS = 3= 5 8= 8

R = 0.5294 RSQ = 0.2803 11 ITERATIONS.

V	BETA	B
3	1.6573	0.0523
4	0.0278	0.0010
5	-0.0650	-0.0001
8	-1.2593	-1.5152
REG. CONST. =		1.4040

MODEL 3 M3 CRITERION = 1

PREDICTORS = 3= 4 8= 8

R = 0.5285 RSQ = 0.2793 16 ITERATIONS.

V	BETA	B
3	1.5022	0.0474
4	-0.0477	-0.0016
8	-1.1956	-1.4385
REG. CONST. =		1.4030

MODEL 4 M4 CRITERION = 1

PREDICTORS = 2= 2 8= 8

R = 0.4185 RSQ = 0.1751 2 ITERATIONS.

V	BETA	B
2	0.3122	0.0237
8	0.2261	0.2721
REG. CONST. =		0.5561

```
MODEL  5 MS  CRITERION =  1

PREDICTORS =  2= 2

R = 0.3547     RSQ = 0.1258          1 ITERATIONS.

  V      BETA        B
  2    0.3547     0.0269
REG. CONST. =     0.5616

F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =     0.3161      MODEL  1
RSQ REDUCED =  0.2803      MODEL  2
DIFFERENCE =   0.0358
DFN =  1.     DFD =    96.     F-RATIO =    5.031    P = 0.0256


F-TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =     0.2803      MODEL  2
RSQ REDUCED =  0.2793      MODEL  3
DIFFERENCE =   0.0010
DFN =  1.     DFD =    97.     F-RATIO =    0.137    P = 0.7137


F-TEST  3   MODEL 3 VS MODEL 4
RSQ FULL =     0.2793      MODEL  3
RSQ REDUCED =  0.1751      MODEL  4
DIFFERENCE =   0.1041
DFN =  1.     DFD =    98.     F-RATIO =   14.161    P = 0.0005


F-TEST  4   MODEL 4 VS MODEL 5
RSQ FULL =     0.1751      MODEL  4
RSQ REDUCED =  0.1258      MODEL  5
DIFFERENCE =   0.0493
DFN =  1.     DFD =    99.     F-RATIO =    5.921    P = 0.0159
```

*** OUTPUT FROM PROGRAM REGRAN ***

ANALYSIS 4 -- RAINBOW KIT -- GRADE 2

PARAMETERS
COL 1- 5 = 8
COL 6-10 = 76
COL 11-15 = 5
COL 16-20 = 4
COL 21-25 = 1

DATA FORMAT = (DUMMY)

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8
	1.8434	1.0855	0.5224	0.5632	1.2620	0.6272	0.6347	0.4605

SIGMAS	1	2	3	4	5	6	7	8
	0.6352	0.2891	0.5953	0.5636	0.5760	0.7863	0.7140	0.4984

R MATRIX	1	2	3	4	5	6	7	8
1	1.0000	0.2362	0.0524	0.0659	0.2079	0.0954	0.0627	-0.0174
2	0.2362	1.0000	0.3497	0.1437	0.9843	0.4569	0.2909	0.1558
3	0.0524	0.3497	1.0000	-0.8769	0.3661	0.9766	-0.7801	0.9497
4	0.0659	0.1437	-0.8769	1.0000	0.1183	-0.7572	0.9733	-0.9233
5	0.2079	0.9843	0.3661	0.1183	1.0000	0.4860	0.2715	0.1605
6	0.0954	0.4569	0.9766	-0.7572	0.4860	1.0000	-0.7092	0.8634
7	0.0627	0.2909	-0.7801	0.9733	0.2715	-0.7092	1.0000	-0.8214
8	-0.0174	0.1558	0.9497	-0.9233	0.1605	0.8634	-0.8214	1.0000

MODEL 1 M1 CRITERION = 1

PREDICTORS = 3= 4 6= 8

R = 0.3352 RSQ = 0.1123 97 ITERATIONS.

V	BETA	B
3	0.0	0.0
4	3.1226	3.5157
6	0.4457	0.3601
7	-1.9137	-1.7026
8	0.9089	1.1583
REG. CONST. =		0.1827

MODEL 2 M2 CRITERION = 1

PREDICTORS = 3= 5 8= 8

R = 0.3131 RSQ = 0.0980 163 ITERATIONS.

V	BETA	B
3	3.0410	3.2451
4	2.2257	2.5088
5	-1.0572	-1.1660
8	-0.6810	-0.8679
REG. CONST. =		0.6066

MODEL 3 M3 CRITERION = 1

PREDICTORS = 3= 4 8= 8

R = 0.2560 RSQ = 0.0656 49 ITERATIONS.

V	BETA	B
3	0.6887	0.7349
4	0.3567	0.4021
8	-0.3422	-0.4361
REG. CONST. =		1.4339

MODEL 4 M4 CRITERION = 1

PREDICTORS = 2= 2 8= 8

R = 0.2425 RSQ = 0.0588 2 ITERATIONS.

V	BETA	B
2	0.2449	0.5380
8	-0.0556	-0.0709
REG. CONST. =		1.2920

```
MODEL  5 MS  CRITERION =  1

PREDICTORS =  2= 2

R = 0.2362      RSQ = 0.0558          1 ITERATIONS.

  V       BETA        B
  2     0.2362     0.5190
REG. CONST.. =     1.2800


F-TEST  1    MODEL 1 VS MODEL 2
RSQ FULL =     0.1123      MODEL  1
RSQ REDUCED =  0.0980      MODEL  2
DIFFERENCE =   0.0143
DFN =  1.      DFD =   70.      F-RATIO =    1.131    P = 0.2914


F-TEST  2    MODEL 2 VS MODEL 3
RSQ FULL =     0.0980      MODEL  2
RSQ REDUCED =  0.0656      MODEL  3
DIFFERENCE =   0.0325
DFN =  1.      DFD =   71.      F-RATIO =    2.555    P = 0.1105


F-TEST  3    MODEL 3 VS MODEL 4
RSQ FULL =     0.0656      MODEL  3
RSQ REDUCED =  0.0588      MODEL  4
DIFFERENCE =   0.0067
DFN =  1.      DFD =   72.      F-RATIO =    0.518    P = 0.4808


F-TEST  4    MODEL 4 VS MODEL 5
RSQ FULL =     0.0588      MODEL  4
RSQ REDUCED =  0.0558      MODEL  5
DIFFERENCE =   0.0030
DFN =  1.      DFD =   73.      F-RATIO =    0.234    P = 0.6356
```

ANALYSIS 4 -- RAINBOW KIT -- GRADE 3

0940

80.71

PARAMETERS
COL 1- 5 = 8
COL 6-10 = 85
COL 11-15 = 5
COL 16-20 = 4
COL 21-25 = 1

DATA FORMAT = (DUMMY)

0960

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8
	2.7624	1.7941	0.9482	0.8459	3.4041	1.8066	1.5975	0.5294

SIGMAS	1	2	3	4	5	6	7	8
	0.6488	0.4304	0.5526	0.9392	1.4933	2.0438	1.9557	0.4991

R MATRIX	1	2	3	4	5	6	7	8
1	1.0000	0.5819	0.0471	0.2189	0.5971	0.1606	-0.2881	-0.1092
2	0.5819	1.0000	0.2569	0.1977	0.9910	0.4118	0.3264	-0.0074
3	0.0471	0.2569	1.0000	-0.8966	0.2640	0.9710	-0.8131	0.9385
4	0.2189	0.1977	-0.8966	1.0000	0.1864	-0.7961	0.9743	-0.9553
5	0.5971	0.9910	0.2640	0.1664	1.0000	0.4230	0.3215	0.0059
6	0.1606	0.4118	0.9710	-0.7961	0.4230	1.0000	-0.7220	0.8334
7	0.2881	0.3264	-0.8131	0.9743	0.3215	-0.7220	1.0000	-0.8664
8	-0.1092	-0.0074	0.9385	-0.9553	0.0059	0.8334	-0.8664	1.0000

D-188

80.71

MODEL 1 M1 CRITERION = 1

PREDICTORS = 3= 4 6= 8

R = 0.6166 RSQ = 0.3827 414 ITERATIONS.

V	BETA	B
3	-1.8316	-1.2475
4	0.0	0.0
6	1.9664	0.6242
7	0.7750	0.2571
8	0.6422	0.8347
REG. CONST. =		1.9649

MODEL 2 M2 CRITERION = 1

PREDICTORS = 3= 5 8= 8

R = 0.6137 RSQ = 0.3766 57 ITERATIONS.

V	BETA	B
3	-1.3520	-0.9208
4	-1.3406	-0.9262
5	1.2054	0.5237
8	-0.1282	-0.1667
REG. CONST. =		2.7244

MODEL 3 M3 CRITERION = 1

PREDICTORS = 3= 4 8= 8

R = 0.5914 RSQ = 0.3498 2 ITERATIONS.

V	BETA	B
3	1.2405	0.8449
4	1.3310	0.9155
8	0.0	0.0
REG. CONST. =		1.1834

MODEL 4 M4 CRITERION = 1

PREDICTORS = 2= 2 8= 8

R = 0.5912 RSQ = 0.3496 2 ITERATIONS.

V	BETA	B
2	0.5811	0.8755
8	-0.1049	-0.1363
REG. CONST. =		1.2631

```
MODEL  5 M5  CRITERION =  1

PREDICTORS =  2= 2

R = 0.5819      RSQ = 0.3386          1 ITERATIONS.

  V       BETA        B
  2     0.5819     0.8771
REG. CONST. =     1.1888


F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =     0.3827      MODEL  1
RSQ REDUCED = 0.3766       MODEL  2
DIFFERENCE =  0.0060
DFN =  1.      DFD =    79.      F-RATIO =    0.773    P = 0.3859


F-TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =     0.3766      MODEL  2
RSQ REDUCED = 0.3498       MODEL  3
DIFFERENCE =  0.0268
DFN =  1.      DFD =    80.      F-RATIO =    3.445    P = 0.0637


F-TEST  3   MODEL 3 VS MODEL 4
RSQ FULL =     0.3498      MODEL  3
RSQ REDUCED = 0.3496       MODEL  4
DIFFERENCE =  0.0002
DFN =  1.      DFD =    81.      F-RATIO =    0.028    P = 0.8626


F-TEST  4   MODEL 4 VS MODEL 5
RSQ FULL =     0.3496      MODEL  4
RSQ REDUCED = 0.3386       MODEL  5
DIFFERENCE =  0.0110
DFN =  1.      DFD =    82.      F-RATIO =    1.387    P = 0.2406
```

ANALYSIS 4 -- RAINBOW KIT -- GRADE 4 0940

80.71

PARAMETERS
COL 1- 5 = 8
COL 6-10 = 101
COL 11-15 = 5
COL 16-20 = 4
COL 21-25 = 1

DATA FORMAT = (DUMMY)

0960

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8
	3.4030	2.6149	1.5545	1.0604	7.1340	4.4085	2.7254	0.5644

SIGMAS	1	2	3	4	5	6	7	8
	0.8008	0.5445	1.4114	1.2653	2.7593	4.3197	3.6034	0.4958

R MATRIX.	1	2	3	4	5	6	7	8
1	1.0000	0.7485	0.3480	-0.0660	0.7447	0.4218	0.0645	0.2352
2	0.7485	1.0000	0.4474	-0.0687	0.9890	0.5494	0.0987	0.2917
3	0.3480	0.4474	1.0000	-0.9230	0.4443	0.9787	-0.8330	0.9676
4	-0.0660	-0.0687	-0.9230	1.0000	-0.0700	-0.8553	0.9717	-0.9539
5	0.7447	0.9890	0.4443	-0.0700	1.0000	0.5574	0.0975	0.2795
6	0.4218	0.5494	0.9787	-0.8553	0.5574	1.0000	-0.7719	0.8967
7	0.0645	0.0987	-0.8330	0.9717	0.0975	-0.7719	1.0000	-0.8609
8	0.2352	0.2917	0.9676	-0.9539	0.2795	0.8967	-0.8609	1.0000

D-191

MODEL 1 M1 CRITERION = 1

PREDICTORS = 3= 4 6= 8

R = 0.7475 RSQ = 0.5588 109 ITERATIONS.

V	BETA	B
3	0.1211	0.0687
4	0.1637	0.1036
6	1.0144	0.1881
7	0.9327	0.2073
8	0.1675	0.2705
REG. CONST. =		1.6397

MODEL 2 M2 CRITERION = 1

PREDICTORS = 3= 5 8= 8

R = 0.7477 RSQ = 0.5591 9 ITERATIONS.

V	BETA	B
3	0.0	0.0
4	0.2719	0.1721
5	0.6787	0.1970
8	0.3045	0.4917
REG. CONST. =		1.5377

MODEL 3 M3 CRITERION = 1

PREDICTORS = 3= 4 8= 8

R = 0.7487 RSQ = 0.5605 4 ITERATIONS.

V	BETA	B
3	1.9355	1.0981
4	1.7237	1.0909
8	0.0035	0.0056
REG. CONST. =		0.5360

377

MODEL 4 M4 CRITERION = 1

PREDICTORS = 2= 2 8= 8

R = 0.7487 RSQ = 0.5606 2 ITERATIONS.

V	BETA	B
2	0.7431	1.0929
8	0.0184	0.0297
REG. CONST. =		0.5285

MODEL 5 M5 CRITERION = 1

PREDICTORS = 2= 2

R = 0.7485 RSQ = 0.5603 1 ITERATIONS.

V	BETA	B
2	0.7485	1.1008
REG. CONST. =		0.5246

F-TEST 1 MODEL 1 VS MODEL 2
RSQ FULL = 0.5588 MODEL 1
RSQ REDUCED = 0.5591 MODEL 2
DIFFERENCE = -0.0003
DFN = 1. DFD = 95. F-RATIO = 0.0 P = 1.0000

F-TEST 2 MODEL 2 VS MODEL 3
RSQ FULL = 0.5591 MODEL 2
RSQ REDUCED = 0.5605 MODEL 3
DIFFERENCE = -0.0014
DFN = 1. DFD = 96. F-RATIO = 0.0 P = 1.0000

F-TEST 3 MODEL 3 VS MODEL 4
RSQ FULL = 0.5605 MODEL 3
RSQ REDUCED = 0.5606 MODEL 4
DIFFERENCE = -0.0001
DFN = 1. DFD = 97. F-RATIO = 0.0 P = 1.0000

F-TEST 4 MODEL 4 VS MODEL 5
RSQ FULL = 0.5606 MODEL 4
RSQ REDUCED = 0.5603 MODEL 5
DIFFERENCE = 0.0003
DFN = 1. DFD = 98. F-RATIO = 0.069 P = 0.7891

ANALYSIS 4 -- RAINBOW KIT -- GRADE 5 0940

PARAMETERS
COL 1- 5 = 8
COL 6-10 = 90
COL 11-15 = 5
COL 16-20 = 4
COL 21-25 = 1

DATA FORMAT = (DUMMY) 0960

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8
	4.3500	3.3878	2.0922	1.2956	12.0048	7.7343	4.2704	0.5889

SIGMAS	1	2	3	4	5	6	7	8
	1.0128	0.7265	1.8322	1.6100	4.6978	7.4561	5.7038	0.4920

R MATRIX	1	2	3	4	5	6	7	8
1	1.0000	0.7399	0.4134	-0.1366	0.7422	0.5091	-0.0542	0.2464
2	0.7399	1.0000	0.4856	-0.1014	0.9907	0.6101	-0.0184	0.2719
3	0.4134	0.4856	1.0000	-0.9189	0.5101	0.9754	-0.8550	0.9541
4	-0.1366	-0.1014	-0.9189	1.0000	-0.1334	-0.8347	0.9813	-0.9631
5	0.7422	0.9907	0.5101	-0.1334	1.0000	0.6442	-0.0185	0.2876
6	0.5091	0.6101	0.9754	-0.8347	0.6442	1.0000	-0.7766	0.8667
7	-0.0542	0.0184	-0.8550	0.9813	-0.0185	-0.7766	1.0000	-0.8961
8	0.2464	0.2719	0.9541	-0.9631	0.2876	0.8667	-0.8961	1.0000

MODEL 1 M1 CRITERION = 1

PREDICTORS = 3= 4 6= 8

R = 0.7435 RSQ = 0.5527 15 ITERATIONS.

V	BETA	B
3	0.0259	0.0143
4	0.0	0.0
6	1.1681	0.1587
7	0.8533	0.1515
8	-0.0261	-0.0537
REG. CONST. =		2.4773

MODEL 2 M2 CRITERION = 1

PREDICTORS = 3= 5 8= 8

R = 0.7447 RSQ = 0.5546 82 ITERATIONS.

V	BETA	B
3	0.6655	0.3679
4	0.3017	0.1898
5	0.5144	0.1109
8	-0.2481	-0.5106
REG. CONST. =		2.3037

MODEL 3 M3 CRITERION = 1

PREDICTORS = 3= 4 8= 8

R = 0.7451 RSQ = 0.5551 62 ITERATIONS.

V	BETA	B
3	1.9619	1.0845
4	1.4289	0.8989
8	-0.2464	-0.5072
REG. CONST. =		1.2150

MODEL 4 M4 CRITERION = 1

PREDICTORS = 2= 2 8= 8.

R = 0.7414 RSQ = 0.5496 2 ITERATIONS.

V	BETA	B
2	0.7266	1.0131
8	0.0488	0.1004
REG. CONST. =		0.8589

MODEL 5 M5 CRITERION = 1

PREDICTORS = 2= 2

R = 0.7399 RSQ = 0.5474 1 ITERATIONS.

V	BETA	B
2	0.7399	1.0315
REG. CONST. =		0.8553

F-TEST 1 MODEL 1 VS MODEL 2
RSQ FULL = 0.5527 MODEL 1
RSQ REDUCED = 0.5546 MODEL 2
DIFFERENCE = -0.0019
DFN = 1. DFD = 84. F-RATIO = 0.0 P = 1.0000

F-TEST 2 MODEL 2 VS MODEL 3
RSQ FULL = 0.5546 MODEL 2
RSQ REDUCED = 0.5551 MODEL 3
DIFFERENCE = -0.0005
DFN = 1. DFD = 85. F-RATIO = 0.0 P = 1.0000

F-TEST 3 MODEL 3 VS MODEL 4
RSQ FULL = 0.5551 MODEL 3
RSQ REDUCED = 0.5496 MODEL 4
DIFFERENCE = 0.0055
DFN = 1. DFD = 86. F-RATIO = 1.067 P = 0.3051

F-TEST 4 MODEL 4 VS MODEL 5
RSQ FULL = 0.5496 MODEL 4
RSQ REDUCED = 0.5474 MODEL 5
DIFFERENCE = 0.0022
DFN = 1. DFD = 87. F-RATIO = 0.426 P = 0.5225

ANALYSIS 4 -- RAINBOW KIT -- GRADE 6 0940

80.71

PARAMETERS
COL 1- 5 = 8
COL 6-10 = 79
COL 11-15 = 5
COL 16-20 = 4
COL 21-25 = 1

DATA FORMAT = (DUMMY) 0960

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8
	5.0101	4.1962	1.7937	2.4025	18.1695	7.9849	10.1845	0.4177

SIGMAS	1	2	3	4	5	6	7	8
	0.8942	0.7493	2.1835	2.1006	6.1919	10.4001	9.6345	0.4932

R MATRIX: 4

	1	2	3	4	5	6	7	8
1	1.0000	0.6840	0.3276	-0.0966	0.6800	0.4117	-0.0074	0.1999
2	0.6840	1.0000	0.2802	0.0655	0.9957	0.3986	0.2097	0.1105
3	0.3276	0.2802	1.0000	-0.9396	0.2975	0.9816	-0.8684	0.9699
4	-0.0966	0.0655	-0.9396	1.0000	0.0459	-0.8781	0.9774	-0.9687
5	0.6800	0.9957	0.2975	0.0459	1.0000	0.4168	0.1928	0.1294
6	0.4117	0.3986	0.9816	-0.8781	0.4168	1.0000	-0.8116	0.9065
7	-0.0076	0.2097	-0.8684	0.9774	0.1928	-0.8116	1.0000	-0.8953
8	0.1999	0.1105	0.9699	-0.9687	0.1294	0.9065	-0.8953	1.0000

D-197

MODEL 1 M1 CRITERION = 1

PREDICTORS = 3= 4 6= 8

R = 0.6973 RSQ = 0.4863 37 ITERATIONS.

V	BETA	B
3	0.0	0.0
4	0.0099	0.0042
6	1.2822	0.1103
7	0.8736	0.0811
8	-0.1710	-0.3100
REG. CONST. =		3.4233

MODEL 2 M2 CRITERION = 1

PREDICTORS = 3= 5 8= 8

R = 0.6985 RSQ = 0.4879 27 ITERATIONS.

V	BETA	B
3	0.6829	0.2797
4	0.0267	0.0114
5	0.5421	0.0783
8	-0.5094	-0.9236
REG. CONST. =		3.4444

MODEL 3 M3 CRITERION = 1

PREDICTORS = 3= 4 8= 8

R = 0.7029 RSQ = 0.4941 87 ITERATIONS.

V	BETA	B
3	2.2140	0.9067
4	1.6284	0.6932
8	-0.3699	-0.6706
REG. CONST. =		1.9984

```
MODEL   4 M4  CRITERION =  1

PREDICTORS =  2=.2  8=.8

R = 0.6953      RSQ = 0.4835          2 ITERATIONS.

  V      BETA        B
  2    0.6701    0.7997
  8    0.1259    0.2283
REG. CONST. =    1.5590


MODEL   5 M5  CRITERION =  1

PREDICTORS =  2=.2

R = 0.6840      RSQ = 0.4678          1 ITERATIONS.

  V      BETA        B
  2    0.6840    0.8163
REG. CONST. =    1.5847


F=TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =     0.4863      MODEL  1
RSQ REDUCED =  0.4879      MODEL  2
DIFFERENCE = -0.0016
DFN =  1.      DFD =   73.      F=RATIO =    0.0      P = 1.0000


F=TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =     0.4879      MODEL  2
RSQ REDUCED =  0.4941      MODEL  3
DIFFERENCE = -0.0062
DFN =  1.      DFD =   74.      F=RATIO =    0.0      P = 1.0000


F=TEST  3   MODEL 3 VS MODEL 4
RSQ FULL =     0.4941      MODEL  3
RSQ REDUCED =  0.4835      MODEL  4
DIFFERENCE =   0.0106
DFN =  1.      DFD =   75.      F=RATIO =    1.578    P = 0.2105


F=TEST  4   MODEL 4 VS MODEL 5
RSQ FULL =     0.4835      MODEL  4
RSQ REDUCED =  0.4678      MODEL  5
DIFFERENCE =   0.0157
DFN =  1.      DFD =   76.      F=RATIO =    2.304    P = 0.1293
```

LINEAR MODEL FOR MODEL C.

Model: $Y = a_0U + a_1X^{(1)} + E$

Where,

Y = April, 1981 ITBS Average Reading Grade Equivalent

U = unit vector

$X^{(1)}$ = April, 1980 ITBS Average Reading Grade Equivalent

SEPARATE REGRESSION ANALYSES FOR TITLE I AND COMPARISON STUDENTS AT GRADES 2-6: MODEL C ANALYSES

*** OUTPUT FROM PROGRAM REGPAN ***

MODEL C -- GRADE 2 -- 4-80/4-81 ITBS AVG. READING TOTAL G.E. -- TITLE I <=40

PARAMETERS
COL 1-5 = 2
COL 6-10 = 312
COL 11-15 = 1
COL 16-20 = 0
COL 21-25 = 1

DATA FORMAT = (DUMMY)

INTERCORRELATION ANALYSIS.

MEANS	1	2
	1.8782	1.0763

SIGMAS	1	2
	0.6518	0.3337

R MATRIX	1	2
1	1.0000	0.2535
2	0.2535	1.0000

MODEL 1 MI CRITERION = 1

PREDICTORS = 2- 2

R = 0.2535 RSQ = 0.0642 1 ITERATIONS.

V	BETA	B
2	0.2535	0.4950
REG. CONST. =		1.3454

*** OUTPUT FROM PROGRAM REGRAN *** *

MODEL C -- GRADE 2 4-14-80/4-81 ITBS AVG. READING TOTAL G.E. -- NON-TITLE I >40

80.71

PARAMETERS
COL 1- 5 = 2
COL 6-10 = 633
COL 11-15 = 1
COL 16-20 = 0
COL 21-25 = 1

DATA FORMAT = (DUMMY)

INTERCORRELATION ANALYSIS.

MEANS	1	2
	3.3918	2.4940

SIGMAS	1	2
	0.9362	0.6573

R MATRIX	1	2
1	1.0000	0.7636
2	0.7636	1.0000

MODEL 1 ML CRITERION = 1

PREDICTORS = 2- 2

R = 0.7636 R**2 = 0.5831 1 ITERATIONS.

V	BETA	B*
2	0.7636	1.0975
REG. CONST. =		0.6754

B-203

*** OUTPUT FROM PROGRAM PEGPAN ***

MODEL C -- GRADE 3 -- 4-80/4-81 ITBS AVG. READING TOTAL G.E. -- TITLE I <=40

PARAMETERS:
COL 1-5 = 2
COL 6-10 = 357
COL 11-15 = 1
COL 16-20 = 0
COL 21-25 = 1

DATA FORMAT = (2U1,4Y)

INTERCORRELATION ANALYSIS.

MEANS	1	2
	2.6611	1.7490

SIGMAS	1	2
	0.6662	0.4501

R MATRIX	1	2
1	1.0000	0.5313
2	0.5313	1.0000

MODEL 1 IN CRITERION = 1

PREDICTORS = 2-- 2

R = 0.5313 RSQ = 0.2822 1 ITERATIONS.

V.	BETA	B
2	0.5313	0.7863

*** OUTPUT FROM PROGRAM REGRAN ***

MODEL C -- GRADE 3 -- 4-80/4-81 ITBS AVG. READING TOTAL G.E. -- NON-TITLE I >40

80.71

PARAMETERS
COL 1- 5 = 2
COL 6-10 = 658
COL 11-15 = 1
COL 16-20 = 0
COL 21-25 = 1

DATA FORMAT = (DUMMY)

INTERCORRELATION ANALYSIS.

MEANS	1	2
	4.4813	3.6565

SIGMAS	1	2
	0.9299	0.7563

R MATRIX	1	2
1	1.0000	0.7323
2	0.7323	1.0000

MODEL 1 MI CRITERION = .1

PREDICTORS = 2- 2

R = 0.7323 RSQ = 0.5362 1 ITERATIONS.

V.	BETA	B
2	0.7323	0.9035
REG. CONST. =		1.1888

D-205

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395

393

*** OUTPUT FROM PROGRAM REGRAN ***

MODEL C -- GRADE 4 -- 4-80/4-81 ITBS AVG. READING TOTAL G.E. -- TITLE 1 <=40

80-71

PARAMETERS
COL 1- 5 = 2
COL 6-10 = 345
COL 11-15 = 1
COL 16-20 = 0
COL 21-25 = 1

DATA FORMAT = (DUMMY)

INTERCORRELATION ANALYSIS.

MEANS	1	2
	3.4614	2.6255

SIGMAS	1	2
	0.8476	0.5746

R MATRIX	1	2
1	1.0000	0.6915
2	0.6915	1.0000

MODEL 1 M1 CRITERION = 1

PREDICTORS - 2- 2

R = 0.6915 RSQ = 0.4782 1 ITERATIONS.

V	BETA	B
2	0.6915	1.0200
CREG CONST =		0.7833

D-206

*** OUTPUT FROM PROGRAM REGRAN ***

MODEL C -- GRADE 4 -- 4-80/4-81 ITBS AVG. READING TOTAL G.E. -- NON-TITLE I >4.0

PARAMETERS
COL 1- 5 = 2
COL 6-10 = 445
COL 11-15 = 1
COL 16-20 = 0
COL 21-25 = 1

DATA FORMAT = (DUMMY)

INTERCORRELATION ANALYSIS.

MEANS	1	2
	5.8589	4.6780

SIGMAS	1	2
	1.1674	0.7184

R MATRIX

	1	2
1	1.0000	0.7865
2	0.7865	1.0000

MODEL = 1 701 CRITERION = 1

PREDICTORS = 2- 2

R = 0.7865 SSO = 0.6185 1 ITERATIONS.

V	BETA	D
2	0.7865	1.2780
REG. CONST. =		-0.1203

D-207

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399

*** OUTPUT FROM PROGRAM PREPAR ***

MODEL C --- GRADE 5 --- 4-80/4-81 ITBS AVG. READING TOTAL G.E. --- TITLE I-K=40

PARAMETERS
COL 1- 5 = 2
COL 6-10 = 318
COL 11-15 = 1
COL 16-20 = 0
COL 21-25 = 1

DATA FORMAT = (DUMMY)

INTERCORRELATION ANALYSIS.

MEANS	1	2
	4.2657	3.3252

SIGMAS	1	2
	1.0299	0.7434

R MATRIX	1	2
1	1.0000	0.7754
2	0.7754	1.0000

MODEL 1 ML CRITERION = 1

PREDICTORS = 2- 2

R = 0.7754 ISQ = 0.6012 1 ITERATIONS.

V	BETA	B
2	0.7754	1.0741
REG. CONST. =		0.6941

80.71

D-208

*** OUTPUT FROM PROGRAM PEGRAN ***

MODEL C -- GRADE 5 -- 4-80/4-81 ITBS AVG. READING TOTAL G.E. -- NON-TITLE I >40

PARAMETERS
COL 1- 5 = 2
COL 6-10 = 442
COL 11-15 = 1
COL 16-20 = 0
COL 21-25 = 1

DATA FORMAT = (DUMMY)

INTERCORRELATION ANALYSIS.

MEANS	1	2
	7.3495	6.1704

SIGMAS	1	2
	1.3368	1.0417

P MATRIX	1	2
1	1.0000	0.8658
2	0.8658	1.0000

MODEL 1 MI CRITERION = 1

PREDICTORS = 2- 2

R = 0.8658 RSQ = 0.749[illegible] 1 ITERATIONS.

V	BETA	B
2.	0.8658	1.1111
REG. CONST. =		0.4935

80.71

D-209

403

401

*** OUTPUT FROM PROGRAM REGRAN ***

MODEL C -- GRADE 6 -- 4-80/4-81 ITBS AVG. READING TOTAL G.E. -- TITLE I <=40

PARAMETERS
COL 1-5 = 2
COL 6-10 = .288
COL 11-15 = 1
COL 16-20 = 0
COL 21-25 = 1

DATA FORMAT = (DUMMY)

INTERCORRELATION ANALYSIS.

MEANS	1	2
	4.0899	4.0760

SIGMAS	1	2
	1.0493	0.8660

R MATRIX	1	2
1	1.0000	0.7359
2	0.7359	1.0000

MODEL 1.01 CRITERION = 1

PREDICTORS = 2- 2

R = 0.7359 RSQ = 0.5416 1 ITERATIONS.

V	BETA	B
2	0.7359	0.8917

REG. CONST. = -1.3552

*** OUTPUT FROM PROGRAM PEGRAN ***

MODEL C -- GRADE 6 -- 4-80/4-81 ITBS AVG. READING TOTAL G.E. -- NON-TITLE I >40

PARAMETERS
COL 1- 5 = 2
COL 6-10 = 461
COL 11-15 = 1
COL 16-20 = 0
COL 21-25 = 1

DATA FORMAT = (OU1MY)

INTERCORRELATION ANALYSIS.

MEANS

1	2
8.3865	7.2282

SIGMAS

1	2
1.4898	1.2272

R MATRIX

	1	2
1	1.0000	0.8770
2	0.8770	1.0000

MODEL 1 ML CRITERION = 1

PREDICTORS = 2- 2

R = 0.8770 RSQ = 0.7691 1 ITERATIONS.

V	BETA	B
2	0.8771	1.0646
REG. CONST. =		0.6911

ANALYSES TO COMPARE REGRESSION
SLOPES AND INTERCEPTS OF
MODEL C DATA, GRADES 2-6.

The previous numbered page in the original document was blank

MODEL C -- GRADE 2 -- 4-80/4-81 ITBS AVG. READING TOTAL G.E. 0480

80.71

PARAMETERS
COL 1-5 = 8
COL 6-10 = 945
COL 11-15 = 5
COL 16-20 = 4
COL 21-25 = 1

DATA FORMAT = (DUMMY) 0500

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8
	2.8921	2.0259	0.3553	1.6706	4.8751	0.4192	4.4558	0.3302

SIGMAS	1	2	3	4	5	6	7	8
	1.1108	0.8779	0.5417	1.2903	3.9139	0.6561	4.3093	0.4703

R MATRIX	1	2	3	4	5	6	7	8
1	1.0000	0.8281	-0.5689	0.8020	0.8174	-0.5041	0.8236	-0.6408
2	0.8281	1.0000	-0.6328	0.9458	0.9699	-0.5431	0.9686	-0.7594
3	-0.5689	-0.6328	1.0000	-0.8500	-0.5735	0.5781	-0.6789	0.9351
4	0.8020	0.9458	-0.8500	1.0000	0.9004	-0.7797	0.9438	-0.9089
5	0.8174	0.9699	-0.5735	0.9004	1.0000	-0.5078	0.9903	-0.6467
6	-0.5041	-0.5431	0.5781	-0.7797	-0.5078	1.0000	-0.6227	0.8578
7	0.8238	0.9686	-0.6789	0.9438	0.9903	-0.6227	1.0000	-0.7259
8	-0.6408	-0.7594	0.9351	-0.9089	-0.6467	0.8578	-0.7259	1.0000

D-214

MODEL 1 M1 CRITERION = 1

PREDICTORS = 3= 4 6= 8

R = 0.8341 RSQ = 0.6957 59 ITERATIONS.

V	BETA	B
3	0.0	0.0
4	1.0830	0.9323
6	0.1784	0.2848
7	0.1062	0.0274
8	0.2658	0.6279
REG. CONST. =		0.8859

MODEL 2 M2 CRITERION = 1

PREDICTORS = 3= 5 8= 8

R = 0.8338 RSQ = 0.6952 36 ITERATIONS.

V	BETA	B
3	0.2192	0.4498
4	0.9948	0.8564
5	0.1447	0.0411
8	0.1501	0.3546
REG. CONST. =		0.9844

MODEL 3 M3 CRITERION = 1

PREDICTORS = 3= 4 8= 8

R = 0.8338 RSQ = 0.6953 22 ITERATIONS.

V	BETA	B
3	0.2560	0.5253
4	1.2553	1.0806
8	0.2589	0.6115
REG. CONST. =		0.6982

```
MODEL  4 M4  CRITERION =  1

PREDICTORS =  2= 2  8= 8

R = 0.8283      RSQ = 0.6860          2 ITERATIONS.

  V       BETA        B
  2     0.8067     1.0207
  8    -0.0281    -0.0664
REG. CONST. =     0.8460


MODEL  5 M5  CRITERION =  1

PREDICTORS =  2= 2

R = 0.8281      RSQ = 0.6857          1 ITERATIONS.

  V       BETA        B
  2     0.8281     1.0478
REG. CONST. =     0.7693


F-TEST  1    MODEL 1 VS MODEL 2
RSQ FULL =      0.6957      MODEL  1
RSQ REDUCED =   0.6952      MODEL  2
DIFFERENCE =    0.0006
DFN =  1.      DFD =  939.      F-RATIO =    1.793    P = 0.1774


F-TEST  2    MODEL 2 VS MODEL 3
RSQ FULL =      0.6952      MODEL  2
RSQ REDUCED =   0.6953      MODEL  3
DIFFERENCE =   -0.0001
DFN =  1.      DFD =  940.      F-RATIO =    0.0      P = 1.0000


F-TEST  3    MODEL 3 VS MODEL 4
RSQ FULL =      0.6953      MODEL  3
RSQ REDUCED =   0.6860      MODEL  4
DIFFERENCE =    0.0092
DFN =  1.      DFD =  941.      F-RATIO =   28.531    P = 0.0000


F-TEST  4    MODEL 4 VS MODEL 5
RSQ FULL =      0.6860      MODEL  4
RSQ REDUCED =   0.6857      MODEL  5
DIFFERENCE =    0.0003
DFN =  1.      DFD =  942.      F-RATIO =    1.005    P = 0.3175
```

MODEL E -- GRADE 3 -- 4-80/4-81 ITBS AVG. READING TOTAL G.E. 0480

80.71

PARAMETERS
COL 1- 5 = 8
COL 6-10 = 1015
COL 11-15 = 5
COL 16-20 = 4
COL 21-25 = 1

DATA FORMAT = (DUMMY) 0500

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8
	3.8411	2.9856	0.6152	2.3704	10.185[illegible]	1.1472	9.0384	0.3517

SIGMAS	1	2	3	4	5	6	7	8
	1.2133	1.1277	0.8768	1.8492	7.0726	1.8056	8.2158	0.4775

R MATRIX	1	2	3	4	5	6	7	8
1	1.0000	0.8636	-0.6297	0.8252	0.8385	-0.5300	0.8383	-0.7164
2	0.8636	1.0000	-0.6973	0.9405	0.9778	-0.5783	0.9688	-0.8077
3	-0.6297	-0.6973	1.0000	-0.8594	-0.6480	0.9739	-0.7715	0.6525
4	0.8252	0.9405	-0.8994	1.0000	0.9035	-0.8145	0.9568	-0.9442
5	0.8385	0.9778	-0.6480	0.9035	1.0000	-0.5567	0.9632	-0.7211
6	-0.5300	-0.5783	0.9739	-0.8145	-0.5567	1.0000	-0.6990	0.8626
7	0.8383	0.9688	-0.7715	0.9568	0.9632	-0.6990	1.0000	-0.8103
8	-0.7164	-0.8077	0.6525	-0.9442	-0.7211	0.8626	-0.8103	1.0000

D-217

MODEL 1 M1 CRITERION = 1

PREDICTORS = 3= 4. 6= 8

R = 0.8680 RSQ = 0.7533 123 ITERATIONS.

V	BETA	B
3	0.0	0.0
4	3.0878	2.0261
6	0.3565	0.2396
7	-0.9763	-0.1442
8	1.0990	2.7926
REG. CONST. =		-0.9155

MODEL 2 M2 CRITERION = 1

PREDICTORS = 3= 5 8= 8

R = 0.8671 RSQ = 0.7518 143 ITERATIONS.

V	BETA	B
3	0.8948	1.2383
4	2.7566	1.8087
5	-0.6828	-0.1171
8	0.5401	1.3724
REG. CONST. =		-0.4978

MODEL 3 M3 CRITERION = 1

PREDICTORS = 3= 4 8= 8

R = 0.8644 RSQ = 0.7472 4 ITERATIONS.

V	BETA	B
3	0.5854	0.8101
4	1.3578	0.8909
8	0.0065	0.0165
REG. CONST. =		1.2250

```
MODEL  4 MA  CRITERION =  1

PREDICTORS =  2= 2  8= 8

R = 0.8642      RSQ = 0.7468          2 ITERATIONS.

  V       BETA        B
  2     0.8198     0.8820
  8    -0.0542    -0.1377
REG. CONST. =     1.2561


MODEL  5 M5  CRITERION =  1

PREDICTORS =  2= 2

R = 0.8636      RSQ = 0.7457          1 ITERATIONS.

  V       BETA        B
  2     0.8636     0.9292
REG. CONST. =     1.0670


F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =     0.7533      MODEL  1
RSQ REDUCED =  0.7518      MODEL  2
DIFFERENCE =   0.0015
DFN =  1.      DFD = 1009.      F-RATIO =   6.261    P = 0.0125


F-TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =     0.7518      MODEL  2
RSQ REDUCED =  0.7472      MODEL  3
DIFFERENCE =   0.0046
DFN =  1.      DFD = 1010.      F-RATIO =  18.621    P = 0.0001


F-TEST  3   MODEL 3 VS MODEL 4
RSQ FULL =     0.7472      MODEL  3
RSQ REDUCED =  0.7468      MODEL  4
DIFFERENCE =   0.0005
DFN =  1.      DFD = 1011.      F-RATIO =   1.906    P = 0.1680


F-TEST  4   MODEL 4 VS MODEL 5
RSQ FULL =     0.7468      MODEL  4
RSQ REDUCED =  0.7457      MODEL  5
DIFFERENCE =   0.0010
DFN =  1.      DFD = 1012.      F-RATIO =   4.081    P = 0.0418
```

MODEL C -- GRADE 4 -- 4-80/4-81 ITBS AVG. READING TOTAL G.E. C480

80.71

PARAMETERS
COL 1- 5 = 8
COL 6-10 = 790
COL 11-15 = 5
COL 16-20 = 4
COL 21-25 = 1

DATA FORMAT = (DUMMY) 0500

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8
	4.8119	3.7820	1.1466	2.6354	15.7756	3.1546	12.6210	0.4367

SIGMAS	1	2	3	4	5	6	7	8
	1.5796	1.2132	1.3564	2.3823	9.3662	4.0654	12.2811	0.4960

R MATRIX

	1	2	3	4	5	6	7	8
1	1.0000	0.9024	-0.6540	0.8319	0.8994	-0.5472	0.8671	-0.7527
2	0.9024	1.0000	-0.7182	0.9182	0.9856	-0.5932	0.9480	-0.8394
3	-0.6540	-0.7182	1.0000	-0.9351	-0.7149	0.9771	-0.8687	0.9600
4	0.8319	0.9182	-0.9351	1.0000	0.9050	-0.8584	0.9774	-0.9741
5	0.8994	0.9856	-0.7149	0.9050	1.0000	-0.6115	0.9651	-0.8040
6	-0.5472	-0.5932	0.9771	-0.8584	-0.6115	1.0000	-0.7974	0.8813
7	0.8671	0.9480	-0.8687	0.9774	0.9651	-0.7974	1.0000	-0.9049
8	-0.7527	-0.8394	0.9600	-0.9741	-0.8040	0.8813	-0.9049	1.0000

D-220

MODEL 1 M1 CRITERION = 1

PREDICTORS = 3= 4 6= 8

R = 0.9043 RSQ = 0.8177 12 ITERATIONS.

V	BETA	B
3	0.0	0.0
4	0.0	0.0
6	0.5175	0.2011
7	1.0336	0.1329
8	-0.2720	-0.8663
REG. CONST. =		2.8780

MODEL 2 M2 CRITERION = 1

PREDICTORS = 3= 5 8= 8

R = 0.9044 RSQ = 0.8179 6 ITERATIONS.

V	BETA	B
3	0.3033	0.3532
4	0.0	0.0
5	0.7805	0.1316
8	-0.4176	-1.3299
REG. CONST. =		2.9110

MODEL 3 M3 CRITERION = 1

PREDICTORS = 3= 4 8= 8

R = 0.9039 RSQ = 0.8170 30 ITERATIONS.

V	BETA	B
3	0.8969	1.0445
4	1.8989	1.2591
8	0.2341	0.7455
REG. CONST. =		-0.0295

MODEL 4 M4 CRITERION = 1

PREDICTORS = 2= 2 8= 8

R = 0.9025 RSQ = 0.8145 2 ITERATIONS.

V	BETA	B
2	0.9158	1.1925
8	0.0160	0.0509
REG. CONST. =		0.2798

```
MODEL  5 MS  CRITERION =  1

PREDICTORS =  2= 2

R = 0.9024     RSQ = 0.8144          1 ITERATIONS.

  V       BETA        B
  2     0.9024     1.1750
REG. CONST. =      0.3680


F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =     0.8177      MODEL  1
RSQ REDUCED =  0.8179      MODEL  2
DIFFERENCE = -0.0002
DFN =  1.      DFD =  784.      F-RATIO =  0.0     P = 1.0000


F-TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =     0.8179      MODEL  2
RSQ REDUCED =  0.8170      MODEL  3
DIFFERENCE =   0.0010
DFN =  1.      DFD =  785.      F-RATIO =   4.162    P = 0.0391


F-TEST  3   MODEL 3 VS MODEL 4
RSQ FULL =     0.8170      MODEL  3
RSQ REDUCED =  0.8145      MODEL  4
DIFFERENCE =   0.0025
DFN =  1.      DFD =  786.      F-RATIO =  10.695    P = 0.0015


F-TEST  4   MODEL 4 VS MODEL 5
RSQ FULL =     0.8145      MODEL  4
RSQ REDUCED =  0.8144      MODEL  5
DIFFERENCE =   0.0001
DFN =  1.      DFD =  737.      F-RATIO =   0.320    P = 0.5721
```

*** OUTPUT FROM PROGRAM REGRAN ***

MODEL C -- GRADE 5 -- 4-80/4-81 ITBS AVG. READING TOTAL G.E. 0460

80-71

PARAMETERS
COL 1-5 = 8
COL 6-10 = 760
COL 11-15 = 5
COL 16-20 = 4
COL 21-25 = 1

DATA FORMAT = (DUMMY) 0500

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8
	6.0592	4.9799	1.3913	3.5886	27.6313	4.8576	22.7737	0.4184

SIGMAS	1	2	3	4	5	6	7	8
	1.9487	1.6829	1.7093	3.1458	17.3023	6.4834	21.8766	0.4933

R MATRIX	1	2	3	4	5	6	7	8
1	1.0000	0.9406	-0.6746	0.8697	0.9275	-0.5636	0.9006	-0.7807
2	0.9406	1.0000	-0.7199	0.9262	0.9837	-0.6041	0.9571	-0.8340
3	-0.6746	-0.7199	1.0000	-0.9285	-0.7048	0.9782	-0.8473	0.9596
4	0.8697	0.9262	-0.9285	1.0000	0.9092	-0.8547	0.9724	-0.9676
5	0.9275	0.9837	-0.7048	0.9092	1.0000	-0.6114	0.9721	-0.7854
6	-0.5636	-0.6041	0.9782	-0.8547	-0.6114	1.0000	-0.7800	0.8833
7	0.9006	0.9571	-0.8473	0.9724	0.9721	-0.7800	1.0000	-0.8830
8	-0.7807	-0.8340	0.9596	-0.9676	-0.7854	0.8833	-0.8830	1.0000

D-223

MODEL 1 M1 CRITERION = 1

PREDICTORS = 3= 4 6= 8

R = 0.9404 RSQ = 0.8843 13 ITERATIONS.

V	BETA	B
3	0.0	0.0
4	0.0500	0.0310
6	0.5674	0.1706
7	0.9307	0.0829
8	-0.4130	-1.6316
REG. CONST. =		3.9142

MODEL 2 M2 CRITERION = 1

PREDICTORS = 3= 5 8= 8

R = 0.9400 RSQ = 0.8836 6 ITERATIONS.

V	BETA	B
3	0.4672	0.5327
4	0.0	0.0
5	0.7584	0.0854
8	-0.6346	-2.5068
REG. CONST. =		4.0069

MODEL 3 M3 CRITERION = 1

PREDICTORS = 3= 4 8= 8

R = 0.9406 RSQ = 0.8848 3 ITERATIONS.

V	BETA	B
3	0.9699	1.1057
4	1.7749	1.0995
8	0.0060	0.0239
REG. CONST. =		0.5653

MODEL 4 M4 CRITERION = 1

PREDICTORS = 2= 2 8= 8

R = 0.9486 RSQ = 0.8948 2 ITERATIONS.

V	BETA	B
2	0.9510	1.1012
8	0.0125	0.0493
REG. CONST. =		0.5547

MODEL 5 M5 CRITERION = 1

PREDICTORS = 2= 2

R = 0.9406 RSQ = 0.8847 1 ITERATIONS.

V	BETA	B
2	C.9406.	1.0891
REG. CONST. =		0.6354

F-TEST 1 MODEL 1 VS MODEL 2
RSQ FULL = 0.8843 MODEL 1
RSQ REDUCED = 0.8836 MODEL 2
DIFFERENCE = 0.0007
DFN = 1. DFD = 754. F-RATIO = 4.625 P = 0.0316

F-TEST 2 MODEL 2 VS MODEL 3
RSQ FULL = 0.8836 MODEL 2
RSQ REDUCED = 0.8848 MODEL 3
DIFFERENCE = -0.0011
DFN = 1. DFD = 755. F-RATIO = C.C P = 1.CCCC

F-TEST 3 MODEL 3 VS MODEL 4
RSQ FULL = 0.8848 MODEL 3
RSQ REDUCED = 0.8848 MODEL 4
DIFFERENCE = -0.0000
DFN = 1. DFD = 756. F-RATIO = 0.0 P = 1.0000

F-TEST 4 MODEL 4 VS MODEL 5
RSQ FULL = 0.8848 MODEL 4
RSQ REDUCED = 0.8847 MODEL 5.
DIFFERENCE = 0.0000
DFN = 1. DFD = 757. F-RATIO = 0.312 P = 0.5836

*** OUTPUT FROM PROGRAM REGRAN ***

MODEL C -- GRADE 6 -- 4-80/4-81 ITBS AVG. READING ICIAL GLE. C480 80.71

PARAMETERS
COL 1- 5 = 8
COL 6-10 = 749
COL 11-15 = 5
COL 16-20 = 4
COL 21-25 = 1

DATA FORMAT = (DUMMY) 0500

INTERCORRELATION ANALYSIS.

MEANS	1	2	3	4	5	6	7	8
	7.0805	6.0162	1.5673	4.4489	39.7609	6.6767	33.0842	0.3845

SIGMAS	1	2	3	4	5	6	7	8
	2.1260	1.8886	2.0543	3.6458	23.2740	9.4473	29.5034	0.4865

R MATRIX	1	2	3	4	5	6	7	8
1	1.0000	0.9409	-0.6913	0.8770	0.9299	-0.5940	0.9114	-0.7772
2	0.9409	1.0000	-0.7094	0.9178	0.9846	-0.5996	0.9557	-0.8120
3	-0.6913	-0.7094	1.0000	-0.9310	-0.6870	0.9792	-0.8441	0.9652
4	0.8770	0.9178	-0.9310	1.0000	0.8971	-0.8624	0.9707	-0.9645
5	0.9299	0.9846	-0.6870	0.8971	1.0000	-0.5987	0.9675	-0.7606
6	-0.5940	-0.5996	0.9792	-0.8624	-0.5987	1.0000	-0.7819	0.8941
7	0.9114	0.9557	-0.8441	0.9707	0.9675	-0.7819	1.0000	-0.8745
8	-0.7772	-0.8120	0.9652	-0.9645	-0.7606	0.8941	-0.8745	1.0000

D-226

80.71

MODEL 1 M1 CRITERION = 1

PREDICTORS = 3= 4 6= 8

R = 0.9407 RSQ = 0.8850 82 ITERATIONS.

V	BETA	B
3	0.0577	0.0597
4	0.5146	0.3001
6	0.4785	0.1077
7	0.7036	0.0500
8	-0.1500	-0.6554
REG. CONST. =		3.5295

MODEL 2 M2 CRITERION = 1

PREDICTORS = 3= 5 8= 8

R = 0.9398 RSQ = 0.8833 10 ITERATIONS.

V	BETA	B
3	0.3229	0.3342
4	0.0	0.0
5	0.7654	0.0699
8	-0.5079	-2.2197
REG. CONST. =		4.6303

MODEL 3 M3 CRITERION = 1

PREDICTORS = 3= 4 8= 8

R = 0.9419 RSQ = 0.8872 21 ITERATIONS.

V	BETA	B
3	0.8919	0.9230
4	1.8111	1.0561
8	0.1087	0.4751
REG. CONST. =		0.7526

MODEL 4 M4 CRITERION = 1

PREDICTORS = 2= 2 8= 8

R = 0.9412 RSQ = 0.8858 2 ITERATIONS.

V	BETA	B
2	0.9093	1.0236
8	-0.0389	-0.1700
REG. CONST. =		0.9876

```
MODEL  5 M5  CRITERION =  1

PREDICTORS =  2=V2

R = 0.9409     RSQ = 0.8853          1 ITERATIONS.

   V       BETA        B
  V2     0.9409     1.0592
REG. CONST. =       0.7083


F-TEST  1   MODEL 1 VS MODEL 2
RSQ FULL =      0.8850      MODEL  1
RSQ REDUCED =   0.8833      MODEL  2
DIFFERENCE =    0.0017
DFN =  1.      DFD =  743.     F-RATIO =  10.894    P = 0.0014


F-TEST  2   MODEL 2 VS MODEL 3
RSQ FULL =      0.8833      MODEL  2
RSQ REDUCED =   0.8872      MODEL  3
DIFFERENCE =   -0.0039
DFN =  1.      DFD =  744.     F-RATIO =   0.0      P = 1.0000


F-TEST  3   MODEL 3 VS MODEL 4
RSQ FULL =      0.8872      MODEL  3
RSQ REDUCED =   0.8858      MODEL  4
DIFFERENCE =    0.0014
DFN =  1.      DFD =  745.     F-RATIO =   5.093    P = 0.0030


F-TEST  4   MODEL 4 VS MODEL 5
RSQ FULL =      0.8858      MODEL  4
RSQ REDUCED =   0.8853      MODEL  5
DIFFERENCE =    0.0005
DFN =  1.      DFD =  746.     F-RATIO =   3.369    P = 0.0633
```

ESEA Title I

Appendix E

PREKINDERGARTEN OBSERVATIONS

Instrument Description: Early Childhood Observation Form

Brief description of the instrument:

This observation instrument was designed to collect information on the activities of a pre-kindergarten student on a minute-to-minute basis during the school day. The variables observed include language spoken, group size, activity, identification of the adults working with students in an instructional capacity, identification of the individuals primarily responsible for the instruction, adult contact, and curriculum used. Space was provided for the observer to note what is occurring as well as coding the information.

To whom was the instrument administered?

In each of the 84 full day observations conducted, one child was observed throughout that day. The children observed were randomly chosen from the class rolls by the Title I Migrant Evaluators.

How many times was the instrument administered?

Each Migrant pre-K class was observed 7 times (this includes the 2 classes funded 50% Migrant/50% Title I) and each Title I pre-K class was observed 3 times.

When was the instrument administered?

From December 3, 1980 through April 30, 1981.

Where was the instrument administered?

In the pre-K classroom, or wherever the student under observation was.

Who administered the instrument?

The two Title I Migrant pre-K observers.

What training did the administrators have?

Both observers were former teachers and had training with the Title I Observer on observation processes. Also the observers did several practice observations in pre-K classes to train with feedback after each practice session.

Was the instrument administered under standardized conditions?

Classroom situations varied.

Were there problems with the instrument or the administration that might affect the validity of the data?

None were identified.

Who developed the instrument?

The instrument has been developed and refined by the Title I and Title I Migrant Evaluators over the last several years.

What reliability and validity data are available on the instrument?

The observation form was virtually unchanged from 1979-80 so comparison data were available.

Are there norm data available for interpreting the results?

No.

PREKINDERGARTEN OBSERVATIONS

Purpose

Information from Early Childhood Observation Forms was used to answer the following decision and evaluation questions from the Title I Evaluation Design for 1980-81.

Decision Question D4: Should the Title I Early Childhood Education Program be continued, modified, or discontinued? If so, how?

Evaluation Question D4-2: How was the program implemented?

Procedure

The Early Childhood Observation Form was developed during 1979-80 for use in evaluating and comparing the Title I and Migrant pre-K programs. The final version of the form was developed by the Title I and Migrant Evaluators and their staffs after field-testing and consideration of the input from the Early Childhood Coordinator. After again reviewing the form with the Early Childhood Coordinator and the Title I Evaluator, it was decided to use the form (Attachments E-1 and E-2) and the instructions (Attachment E-3) again for 1980-81.

The design of the Early Childhood Observation Form provides for the observation of one student's classroom activities for the period of one instructional day. Day-long observation of randomly selected students, combined with a random selection of observation days, were considered to provide a more representative picture of the on-going instructional activities than would a briefer observation.

Some research evidence indicates the presence of an observer in the classroom tends to affect the nature of the activities occurring. However, since the presence of an observer was a constant situational variable, it was felt the effect of an observer's presence would be equal for all students and would not affect the validity of comparisons made between groups of students.

The Early Childhood Observation Form employs a time-sample system that requires the observer to record observations at the end of every minute. A one-minute time duration was selected as appropriate, since a period of less than one minute would have required an inordinate amount of attention by the observer to the form, and a period of more than one minute would not have been a sufficiently sensitive indicator of the activities transpiring.

Ten full days of observation on each classroom would be the optimum to do by-class analyses on the observations. It was felt seven observations per class was the minimum number needed in order to do by-class analyses. Therefore seven observations were planned for each Migrant pre-K class and each

split-funded class. Title I was not able to do any observations of pre-K classes due to the stress placed on observations at the elementary level. It was felt that observations of Title I classes were a necessity in order to have a comparison group for the Migrant classes. Funds limited the number of observations that could be planned. It was decided that at least 3 observations per Title I class would give a good comparison for Migrant classes. The 3 observations per class were not enough to do by-class analyses, but would be sufficient when aggregated across Title I classes.

Two observers were hired to conduct the observations. Although both were former teachers, extensive training sessions were conducted. Through the cooperation of three pre-kindergarten teachers and their principals three practice sessions were held so the observers could practice conducting observations to familiarize themselves with the form and its directions. On the first of these practice sessions, the Title I pre-K observer from 1979-80 went with them and observed and then went over the form, procedures, and discussed how each minute was coded, etc. After each practice session, the observers met with the Evaluator to discuss questions, clarify procedures, etc.

Attachment E-4 indicates the procedures followed in pairing observation days with classes to be observed.

In November a memo (see Attachment E-5) was sent to the Title I and Migrant pre-kindergarten teachers and their principals explaining the purpose of the observations and the procedures. Included with the memo was a brief explanation of what was to be observed (Attachment E-6).

The following steps were taken with each of the 84 observations:

1) A memo (Attachment E-7) was sent to each pre-K teacher and principal notifying them of the week in which the observation would take place. This memo was sent the week prior to the observation.

2) Students to be observed were randomly selected by the Migrant Evaluator from the most recent records of the class' attendance reports. The observers were given the name of three students in case absence occurred.

3) The observer(s) reported to the school 15 minutes early to check in at the school office and get acquainted with the pre-K teacher in whose classroom the observation was being conducted. At that time the pre-K teacher was asked to identify the three students chosen for observation. The teacher did not know which of the three would actually be observed.

4) After identifying the student to be observed, the observer proceeded to observe the selected student throughout the school day according to the directions in Attachment E-3. During the observations the observer sat in an out-of-the-way place so as not to interfere with classroom activities, but such that the observer could see and hear as many classroom proceedings as possible. Although the observer was allowed to change positions if necessary, walking around the room was avoided whenever possible.

5) The observer did not talk to the students in the classroom. If one of the students began to speak to the observer, the observer told the student she had work to do and could not talk.

6) At the end of the school day, the observer asked the pre-K teacher the name of the curriculum for the instructional activities observed during the day. Also the observer was encouraged to answer any questions the teacher might have about the nature or purpose of the observation, etc., but was requested not to offer any comments about the identity of the student observed or the outcome of the observation. At this time, the observer gave the teacher an Observation Reaction Form (Attachment E-8) to complete and return to the Migrant Evaluator if they wished to comment on the observation.

7) The observers returned the completed observation forms to the Evaluator who then sent the teacher the carbon copy via the school mail.

The data from each completed Early Childhood Observation Form were keypunched and verified at Southwest Educational Development Laboratory. The card file layout used is Attachment E-9. The class assignment list used for the coding purposes is Attachment E-10.

Reliability observations were conducted on December 4, 1980 and January 29, 1981. On both dates, the two observers were in the same classroom and observed the same pre-K student. The intraclass correlation coefficient was used to measure the consistency of the ratings. This correlation assesses judgemental consistency by indicating the relative excess of among-subjects over among-raters variation. Observation totals were compared using program INTRAR of the EDSTAT statistical package at UT. Parameters were as follows:

Number of variable = number of categories of variables
Number of subjects = number of different students observed
Number of data sources = number of observers

In order to obtain interrater reliability coefficients for both December and February, it was necessary to treat each day of observation as two half-days. As a result, reliability coefficients for each of the 33 categories for all four half-days were combined (Figure E-1). Thirty-two of the 33 categories yielded coefficients of 97 or above. In one category no time use was observed. The reliability estimates were considered very acceptable for the purposes of this study.

The data as read from cards are available on UT6634 OBS81. Using program OB4 on 6634 OBS81 was converted to OBTEMP (saved on UT PF 7156). SPSS programs CROSSTABS , MULTRESPONSE, and BREAKDOWN were used to analyze the data (OBTEMP). The SPSS control file used is OBSPS on UT PF A611.

Results

Evaluation Question D1-5. How did the implementation of the Migrant and Title I Early Childhood Programs compare?

The results from the observations are presented in Figures E-2 through E-16. The two Title I/Migrant split-funded classes are included in the Migrant summary.

Examination of Figures E-2 through E-16 reveals:

- Title I teachers spent more time in instructional activities than did migrant teachers (Figure E-2).
- Migrant teachers conducted less formal instruction than did Title I teachers (Figure E-3).
- Title I students took longer naps than did migrant students, and on the average, spent less time at breakfast than did migrant students (Figure E-4).
- Both groups of teachers used English over 96% of the time in their formal instruction (Figure E-5).
- Migrant teachers used slightly more Spanish and English/Spanish mixed than did Title I teachers in informal learning activities (Figure E-6).
- Over the total instructional time observed, English was the predominant language used with Spanish used slightly more in the Migrant classrooms (Figure E-7).
- In formal instruction, the Title I teachers on the average used large groups more than did the Migrant teachers (Figure E-8).
- In informal learning settings, the most frequent group size used by both groups was 2-4 students (Figure E-9).
- Across all learning activities, the Title I teachers generally used a larger group setting than did the Migrant teachers (Figure E-10).
- During formal instruction, the Title I teachers, on the average, had much more instructional contact with their students than did the Migrant teachers. The Migrant aide generally had more instructional contact with students than did the Title I aide (Figure E-11).

- During informal instructional activities, there were only slight differences among the teachers, with Title I teachers having slightly more pupil contact (Figure E-12).

- Across all learning activities, the Migrant teachers had less student contact than did the Title I teachers. The Title I aides had less student contact than did the Migrant aide. Also, several Migrant classes had a student helper who had 11 minutes of pupil contact on the average (Figure E-13).

- The Title I teachers were much more instructionally involved than were the Migrant teachers. The Migrant aides were somewhat more involved than were the Title I aides (Figure E-14).

- The Migrant teachers were less often responsible for instruction than were the Title I teachers. The Title I aides were less often responsible for instruction than were the Migrant aides. There was no one responsible for instruction slightly more in the Migrant class than in the Title I class (Figure E-15).

- Title I teachers used the AISD curriculum 85% of the time and used the other materials the remainder of the time. Migrant teachers used AISD 48% of the time, the BECP 37% of the time, and other materials 15% of the time (Figure E-16).

These data are very similar to the observation data collected in 1979-80 (see ORE publication No. 79.09, Appendix L). The main differences between this year and last are:

- the use of the AISD curriculum has greatly increased in Migrant classes, while use of the BECP has decreased.
- more English is being spoken in the Migrant classes.
- there is a slight decrease in instructional time in the Title I classes.

The observation data obtained for each Migrant and split-funded class are reported in Figures E-17 through E-22. These data should be interpreted cautiously, since more observations per class would guarantee the data obtained to be truly representative of the average classroom activities.

Category	Reliability
Language	
Silence	1.0000
English	.9994
Spanish	.9965
Mixed	.9729
Undetermined	1.0000
Mean Group Size	.9978
No Instruction	
Other	.9893
Breakfast	.9996
Lunch	1.0000
Nap	1.0000
Snack	.9939
Recess	1.0000
Formal Instruction	
Formal Instruction 1	.9965
Formal Instruction 2	1.0000
Informal Instruction	
Informal Instruction 1	*
Informal Instruction 2	.9987
Instructional Involvement	
Teacher	.9963
Aide	.9865
Student Helper	.9983
Other	1.0000
Instructional Responsibility	
Teacher	.9996
Aide	1.0000
Student Helper	.9987
Other	1.0000
No One	.9998
Adult Contact	
Teacher	.9979
Aide	.9753
Student Helper	.9934
Other	1.0000
No One	.9984
Curriculum	
SECP	.9996
AISD	.9995
Other	1.0000

* No time use was observed in this category.

Figure E-1. INTRACLASS CORRELATION ESTIMATES OF INTERRATER RELIABILITY FOR FOUR HALF-DAYS (FOUR SUBJECTS, TWO OBSERVERS).

Population	No Instruction	Formal Instruction (1 & 2)	Informal Learning (1 & 2)	Total Time
Title I (N = 21)	217 min. (55.8%)	110 min. (28.1%)	63 min. (16.1%)	390 min. (100%)
Migrant/ split-funded (N = 63)	231 min. (59.7%)	96 min. (24.8%)	60 min. (15.5%)	387 min. (100%)

Figure E-2. TIME SPENT IN ALL ACTIVITIES.

Population	Formal Instruction 1	Formal Instruction 2	Informal Learning 1	Informal Learning 2	Total Time
Title I (N = 21)	105 min. (61.2%)	4 min. (2.5%)	12 min. (6.8%)	51 min. (29.6%)	172 min. (100%)
Migrant/ split-funded (N = 63)	92 min. (59.2%)	3 min. (2.0%)	7 min. (4.5%)	53 min. (34.2%)	156 min. (100%)

Figure E-3. TIME SPENT IN INSTRUCTIONAL ACTIVITIES.

Population	Breakfast	Lunch	Nap	Snacks	Recess	Other	Total
Title I (N = 21)	9 min. (4.3%)	31 min. (14.3%)	84 min. (38.8%)	5 min. (2.1%)	22 min. (9.9%)	66 min. (30.5%)	217 min. (100%)
Migrant/ split-funded (N = 63)	21 min. (8.9%)	32 min. (14.0%)	67 min. (29.0%)	6 min. (2.7%)	19 min. (8.2%)	86 min. (37.2%)	231 min. (100%)

Figure E-4. TIME SPENT IN NONINSTRUCTIONAL ACTIVITIES.

Population	English	Spanish	Mixed	Undetermined	Silence	Total
Title I (N = 21)	102 min. (96.9%)	1 min. (1.2%)	1 min. (1.2%)	<1 min. (0.7%)	0 (0%)	105 min. (100%)
Migrant (N = 63)	89 min. (96.2%)	1 min. (1.5%)	2 min. (1.9%)	<1 min. (0.3%)	<1 min. (0%)	92 min. (100%)

Figure E-5. LANGUAGE USED DURING FORMAL INSTRUCTION 1.

Population	English	Spanish	Mixed	Undetermined	Silence	Total
Title I (N = 21)	62 min. (98.9%)	0 (0%)	0 (0%)	<1 min. (0.9%)	<1 min. (0.2%)	63 min. (100%)
Migrant (N = 63)	57 min. (94.8%)	<1 min. (1.3%)	2 min. (2.9%)	<1 min. (0.9%)	<1 min. (0.1%)	60 min. (100%)

Figure E-6. LANGUAGE USED DURING INFORMAL LEARNING ACTIVITIES.

Population	English	Spanish	Mixed	Undetermined	Silence	Total
Title I (N = 21)	164 min. (97.6%)	1 min. (0.8%)	1 min. (0.8%)	1 min. (0.6%)	<1 min. (0.2%)	168 min. (100%)
Migrant (N = 63)	146 min. (96.1%)	2 min. (1.0%)	4 min. (2.3%)	<1 min. (0.5%)	<1 min. (0.1%)	152 min. (100%)

Figure E-7. LANGUAGE USED DURING TOTAL INSTRUCTIONAL TIME OBSERVED.

Population	1	2	5-7	8-10	11-13	14 or more	Total
Title I (N = 21)	<1 min. (0.1%)	7 min. (7.0%)	21 min. (20.3%)	3 min. (2.8%)	16 min. (15.0%)	58 min. (54.8%)	105 min. (100%)
Migrant (N = 63)	1 min. (1.0%)	10 min. (10.8%)	26 min. (28.1%)	13 min. (14.2%)	13 min. (14.2%)	29 min. (31.9%)	92 min. (100%)

Figure E-8. TIME SPENT IN GROUPS OF VARIOUS SIZES DURING FORMAL INSTRUCTION 1.

Population	1	2-4	5-7	8-10	11-13	14 or more	Total
Title I (N = 21)	5 min. (7.5%)	26 min. (41.8%)	18 min. (29.4%)	3 min. (3.5%)	2 min. (3.0%)	9 min. (14.8%)	63 min. (100%)
Migrant (N = 63)	9 min. (15.3%)	33 min. (54.5%)	6 min. (9.5%)	1 min. (1.5%)	4 min. (7.2%)	7 min. (12.0%)	60 min. (100%)

Figure E-9. TIME SPENT IN GROUPS OF VARIOUS SIZES DURING INFORMAL LEARNING ACTIVITIES.

Population	1	2-4	5-7	8-10	11-13	14 or more	Total
Title I (N = 21)	5 min. (3.1%)	33 min. (19.8%)	40 min. (23.8%)	5 min. (3.0%)	18 min. (10.6%)	67 min. (39.9%)	168 min. (100%)
Migrant (N = 63)	10 min. (6.6%)	43 min. (28.2%)	32 min. (21.1%)	14 min. (9.2%)	17 min. (11.2%)	36 min. (23.7%)	152 min. (100%)

Figure E-10. TIME SPENT IN GROUPS OF VARIOUS SIZES DURING TOTAL INSTRUCTIONAL TIME.

Population	Teacher	Aide	Student Helper	Other	No One
Title I' (N = 21)	86 min.	19 min.	0 min.	7 min.	3 min.
Migrant (N = 63)	58 min.	30 min.	8 min.	9 min.	3 min.

Figure E-11. ADULT CONTACT DURING FORMAL INSTRUCTION 1 (MULTI-CODED).

Population	Teacher	Aide	Student Helper	Other	No One
Title I (N = 21)	19 min.	8 min.	0 min.	1 min.	38 min.
Migrant (N = 63)	16 min.	6 min.	3 min.	1 min.	37 min.

Figure E-12. ADULT CONTACT DURING INFORMAL LEARNING ACTIVITIES (MULTI-CODED).

Population	Teacher	Aide	Student Helper	Other	No One
Title I (N = 21)	105 min.	27 min.	0 min.	8 min.	41 min.
Migrant (N = 63)	74 min.	36 min.	11 min.	10 min.	40 min.

Figure E-13. ADULT CONTACT DURING FORMAL INSTRUCTION 1 AND INFORMAL LEARNING ACTIVITIES. (MULTI-CODED).

Population	Teacher	Aide	Student Helper	Other
Title I (N = 21)	137 min.	64 min.	0 min.	9 min.
Migrant (N= 63)	106 min.	73 min.	31 min.	10 min.

Figure E-14. INSTRUCTIONAL INVOLVEMENT OF ADULTS WITH STUDENTS (MULTI-CODED).

Population	Teacher	Aide	Student Helper	Other	No One
Title I (N = 21)	99 min. (59.1%)	15 min. (8.9%)	0 min. (0%)	9 min. (5.2%)	46 min. (27.3%)
Migrant (N = 63)	63 min. (42.0%)	23 min. (15.5%)	7 min. (4.7%)	9 min. (5.9%)	48 min. (31.9%)

Figure E-15. AMOUNT OF TIME VARIOUS INDIVIDUALS WERE PRIMARILY RESPONSIBLE FOR THE INSTRUCTION.

Population	BECP	AISD	OTHER
Title I (N = 21)	<1 min. (.7%)	69 min. (85.1%)	12 min. (14.2%)
Migrant (N = 63)	27 min. (36.6%)	36 min. (48.3%)	11 min. (15.1%)

Figure E-16. TIME SPENT USING AISD, BECP, AND OTHER CURRICULA.

School	No Instruction	Formal Instruction	Informal Learning	Total Time
45 (N = 7)	255 min. (65.6%)	90 min. (23.1%)	44 min. (11.3%)	389 min. (100%)
46 (N = 7)	233 min. (59.9%)	80 min. (20.5%)	76 min. (19.5%)	388 min. (100%)
47 (N = 7)	192 min. (49.8%)	138 min. (35.7%)	56 min. (14.5%)	386 min. (100%)
48 (N = 7)	242 min. (62.5%)	85 min. (22.0%)	60 min. (15.5%)	389 min. (100%)
49 (N = 7)	234 min. (60.3%)	75 min. (19.2%)	79 min. (20.5%)	388 min. (100%)
50 (N = 7)	243 min. (60.9%)	94 min. (24.5%)	56 min. (14.6%)	386 min. (100%)
51 (N = 7)	233 min. (60.2%)	69 min. (17.8%)	85 min. (22.0%)	387 min. (100%)
52 (N = 7)	221 min. (57.2%)	137 min. (35.4%)	29 min. (7.4%)	387 min. (100%)
53 (N = 7)	230 min. (60.7%)	95 min. (25.1%)	54 min. (14.2%)	379 min. (100%)

Figure E-17. TIME SPENT IN ALL ACTIVITIES IN EACH MIGRANT AND SPLIT-FUNDED CLASS.

School	Formal Instruction 1	Formal Instruction 2	Informal Learning 1	Informal Learning 2	Total Time
45	86 min.	5 min.	13 min.	31 min.	134 min.
(N = 7)	(63.2%)	(3.8%)	(9.9%)	(23.1%)	(100%)
46	80 min.	0 min.	3 min.	73 min.	156 min.
(N = 7)	(51.2%)	(0%)	(1.7%)	(47.1%)	(100%)
47	138 min.	0 min.	3 min.	53 min.	194 min.
(N = 7)	(71.1%)	(0%)	(1.6%)	(27.3%)	(100%)
48	76 min.	9 min.	8 min.	53 min.	146 min.
(N = 7)	(52.4%)	(6.2%)	(5.4%)	(36.0%)	(100%)
49	75 min.	0 min.	5 min.	74 min.	154 min.
(N = 7)	(48.5%)	(0%)	(3.3%)	(48.2%)	(100%)
50	94 min.	0 min.	4 min.	53 min.	150 min.
(N = 7)	(62.5%)	(0%)	(2.5%)	(35.0%)	(100%)
51	69 min.	0 min.	13 min.	72 min.	154 min.
(N = 7)	(44.8%)	(0%)	(8.3%)	(47.0%)	(100%)
52	123 min.	11 min.	13 min.	19 min.	166 min.
(N = 7)	(74.2%)	(6.7%)	(7.7%)	(11.4%)	(100%)
53	92 min.	3 min.	2 min.	52 min.	149 min.
(N = 7)	(61.5%)	(2.3%)	(1.2%)	(35.0%)	(100%)

Figure E-18: TIME SPENT IN INSTRUCTIONAL ACTIVITIES IN EACH MIGRANT AND SPLIT-FUNDED CLASS.

School	Breakfast	Lunch	Nap	Snack	Recess	Other	Total Time
45	21 min.	34 min.	65 min.	6 min.	16 min.	113 min.	255 m
(N = 7)	(8.3%)	(13.5%)	(25.5%)	(2.2%)	(6.4%)	(44.1%)	(100%
46	18 min.	28 min.	79 min.	8 min.	22 min.	78 min.	233 m
(N = 7)	(7.6%)	(12.1%)	(33.9%)	(3.4%)	(9.3%)	(33.7%)	(100%
47	17 min.	33 min.	58 min.	2 min.	4 min.	79 min.	192 m
(N = 7)	(8.8%)	(17.1%)	(30.0%)	(0.8%)	(2.2%)	(41.1%)	(100%
48	26 min.	32 min.	72 min.	5 min.	22 min.	87 min.	243 m
(N = 7)	(10.6%)	(13.3%)	(29.5%)	(2.0%)	(8.9%)	(35.7%)	(100%
49	25 min.	35 min.	79 min.	9 min.	23 min.	62 min.	234 m
(N = 7)	(10.9%)	(14.9%)	(33.9%)	(4.0%)	(9.7%)	(26.7%)	(100%
50	23 min.	34 min.	70 min.	6 min.	19 min.	83 min.	234 m
(N = 7)	(9.6%)	(14.3%)	(29.9%)	(2.7%)	(8.0%)	(35.4%)	(100%
51	19 min.	28 min.	59 min.	7 min.	34 min.	87 min.	233 m
(N = 7)	(8.0%)	(12.0%)	(25.3%)	(2.8%)	(14.4%)	(37.4%)	(100%
52	19 min.	32 min.	53 min.	7 min.	18 min.	92 min.	221 m
(N = 7)	(8.4%)	(14.5%)	(23.9%)	(3.4%)	(8.1%)	(41.7%)	(100%
53	19 min.	34 min.	67 min.	6 min.	14 min.	90 min.	230 m
(N = 7)	(8.1%)	(15.0%)	(29.2%)	(2.5%)	(6.1%)	(39.2%)	(100%

Figure E-19. TIME SPENT IN VARIOUS NONINSTRUCTIONAL ACTIVITIES IN EACH MIGRANT AND SPLIT-FUNDED CLASS.

School	English	Spanish	Mixed	Undetermined	None	Total
45	124 min.	2 min.	3 min.	0 min.	0 min.	129 min.
(N = 7)	(96.2%)	(1.8%)	(2.0%)	(0%)	(0%)	(100%)
46	153 min.	3 min.	<1 min.	0 min.	0 min.	156 min.
(N = 7)	(97.9%)	(1.8%)	(<1.0%)	(0%)	(0%)	(100%)
47	193 min.	<1 min.	1 min.	0 min.	0 min.	194 min.
(N = 7)	(99.6%)	(<0.1%)	(0.3%)	(0%)	(0%)	(100%)
48	137 min.	<1 min.	0 min.	0 min.	0 min.	137 min.
(N = 7)	(99.9%)	(1.0%)	(0%)	(0%)	(0%)	(100%)
49	154 min.	0 min.	0 min.	0 min.	0 min.	154 min.
(N = 7)	(100%)	(0%)	(0%)	(0%)	(0%)	(100%)
50	120 min.	9 min.	10 min.	3 min.	0 min.	142 min.
(N =7)	(84.1%)	(6.4%)	(7.1%)	(2.4%)	(0%)	(100%)
51	140 min.	2 min.	13 min.	0 min.	0 min.	154 min.
(N = 7)	(90.7%)	(1.0%)	(8.3%)	(0%)	(0%)	(100%)
52	148 min.	2 min.	3 min.	0 min.	1 min.	152 min.
(N = 7)	(96.6%)	(1.3%)	(1.7%)	(0%)	(0.4%)	(100%)
53	138 min.	1 min.	2 min.	4 min.	0 min.	145 min.
(N = 7)	(94.9%)	(0.7%)	(1.7%)	(2.8%)	(0%)	(100%)

Figure E-20. LANGUAGE SPOKEN DURING TOTAL INSTRUCTIONAL TIME (FORMAL INSTRUCTION 1 AND INFORMAL LEARNING ACTIVITIES) IN EACH MIGRANT AND SPLIT-FUNDED CLASS.

School	1	2-4	5-7	8-10	11-13	14 or More	Total
45	5 min.	33 min.	39 min.	1 min.	1 min.	47 min.	126 min.
(N = 7)	(4.2%)	(25.8%)	(30.7%)	(1.0%)	(0.9%)	(37.4%)	(100%)
46	9 min.	49 min.	20 min.	20 min.	7 min.	51 min.	155 min.
(N = 7)	(5.6%)	(31.4%)	(13.1%)	(12.6%)	(4.6%)	(32.8%)	(100%)
47	10 min.	27 min.	58 min.	33 min.	3 min.	63 min.	194 min.
(N = 7)	(5.2%)	(13.8%)	(29.6%)	(17.2%)	(1.5%)	(32.6%)	(100%)
48	9 min.	57 min.	6 min.	2 min.	14 min.	46 min.	135 min.
(N = 7)	(6.4%)	(42.5%)	(4.8%)	(1.6%)	(10.4%)	(34.4%)	(100%)
49	15 min.	70 min.	1 min.	2 min.	45 min.	21 min.	154 min.
(N = 7)	(9.5%)	(45.7%)	(0.6%)	(1.4%)	(4.2%)	(1.9%)	(100%)
50	9 min.	54 min.	37 min.	2 min.	12 min.	36 min.	150 min.
(N = 7)	(6.0%)	(35.9%)	(24.4%)	(1.3%)	(8.2%)	(24.3%)	(100%)
51	8 min.	25 min.	33 min.	2 min.	43 min.	28 min.	139 min.
(N = 7)	(5.6%)	(18.1%)	(23.9%)	(1.3%)	(31.3%)	(19.9%)	(100%)
52	8 min.	36 min.	31 min.	51 min.	21 min.	1 min.	149 min.
(N = 7)	(5.6%)	(23.9%)	(21.0%)	(34.5%)	(14.4%)	(0.7%)	(100%)
53	18 min.	30 min.	44 min.	12 min.	8 min.	34 min.	145 min.
(N = 7)	(12.1%)	(20.7%)	(30.2%)	(8.0%)	(5.6%)	(23.5%)	(100%)

Figure E-21. TIME SPENT IN GROUPS OF VARIOUS SIZES DURING TOTAL INSTRUCTIONAL TIME (FORMAL INSTRUCTION 1 AND INFORMAL LEARNING ACTIVITIES) IN EACH MIGRANT AND SPLIT-FUNDED CLASS.

School	Teacher	Aide	Student Helper	Other	No One
45	55 min.	22 min.	12 min.	9 min.	31 min.
(N = 7)	(42.7%)	(17.0%)	(9.4%)	6.6%)	(24.2%)
46	52 min.	15 min.	7 min.	8 min.	67 min.
(N = 7)	(35.1%)	(10.0%)	(4.7%)	(5.2%)	(45.0%)
47	87 min.	47 min.	10 min.	5 min.	45 min.
(N = 7)	(44.8%)	(24.2%)	(5.3%)	(2.6%)	(23.0%)
48	52 min.	22 min.	0 min.	15 min.	49 min.
(N = 7)	(37.6%)	(16.2%)	(0%)	(10.6%)	(35.7%)
49	73 min.	3 min.	0 min.	8 min.	70 min.
(N = 7)	(47.2%)	(1.9%)	(0%)	(5.2%)	(45.7%)
50	51 min.	18 min.	13 min.	16 min.	52 min.
(N = 7)	(33.8%)	(12.3%)	(8.5%)	(10.8%)	(34.6%)
51	64 min.	23 min.	0 min.	<1 min.	67 min.
(N = 7)	(41.6%)	(14.9%)	(0%)	(0.2%)	(43.6%)
52	75 min.	40 min.	13 min.	8 min.	15 min.
(N = 7)	(50.0%)	(26.3%)	(8.4%)	(5.5%)	(9.8%)
53	62 min.	21 min.	10 min.	11 min.	37 min.
(N = 7)	(44.1%)	(14.9%)	(6.8%)	(7.7%)	(26.6%)

Figure E-22. AMOUNT OF TIME VARIOUS INDIVIDUALS WERE PRIMARILY RESPONSIBLE FOR THE INSTRUCTION IN EACH MIGRANT AND SPLIT-FUNDED CLASS.

Early Childhood Observation Form 1980-1981

CARD	#	TIME	LANGUAGE	GROUP SIZE	Activity: NO INSTRUCT	Activity: INSTRUCTION	Activity: INFORM LEARN	Instruc Imply: TEACHER	Instruc Imply: AIDE	Instruc Imply: STUD HELPER	Instruc Imply: OTHER	Instruc Reason: TEACHER	Instruc Reason: AIDE	Instruc Reason: STUD HELPER	Instruc Reason: OTHER	Instruc Reason: NO ONE	Adult Contact: TEACHER	Adult Contact: AIDE	Adult Contact: STUD HELPER	Adult Contact: OTHER	Adult Contact: NO ONE	Curric: BECP	Curric: AISD	Curric: OTHER
1	01																							
	02																							
	03																							
2	04																							
	05																							
	06																							
3	07																							
	08																							
	09																							
4	10																							
	11																							
	12																							
5	13																							
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6	16																							
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9	25																							
	26																							
	27																							
0	28																							
	29																							
	30																							

FILE ID: A P Q

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DATE: / /

NOTES

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Early Childhood Observation Form 1980-1981

FILE ID: A P O

OBSERVER NO:

OBSERVATION NO:

DATE / /

CARD		TIME	LANGUAGE	GROUP SIZE	Activity: NO INSTRUCTION	Activity: INSTRUCTION	Activity: INFORM LEARN	Instruc Imply: TEACHER	Instruc Imply: AIDE	Instruc Imply: STUDHELPER	Instruc Imply: OTHER	Instruc Reason: TEACHER	Instruc Reason: AIDE	Instruc Reason: STUDHELPER	Instruc Reason: OTHER	Instruc Reason: NO ONE	Adult Contact: TEACHER	Adult Contact: AIDE	Adult Contact: STUDHELPER	Adult Contact: OTHER	Adult Contact: NO ONE	Curric: BECP	Curric: AIBD	Curric: OTHER
	1	:31																						
		:32																						
		:33																						
	2	:34																						
		:35																						
		:36																						
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	9	:55																						
		:56																						
		:57																						
	0	:58																						
		:59																						
		:00																						

NOTES

OFFICE OF RESEARCH AND EVALUATION AISD

80.71

INSTRUCTIONS FOR USING THE EARLY CHILDHOOD OBSERVATION FORM

This observation instrument was developed to provide information for use in comparing Title I and Title I Migrant early childhood program classes. The observations in pre-kindergarten classes are day-long observations of single pre-k students.

Prior to the observation, the observer selects four students at random from the class to be observed. The first student selected is the student to be observed. The other three are backup students. In order to keep the teacher's knowledge of which student is being observed from influencing her behavior toward that child during the day, the observer asks the teacher to identify all four students. The name of the student under observation is not revealed to the teacher until the end of the day.

The information described below is then recorded on a minute-by-minute basis for the school day.

Card Number

The first column on the left indicates the card number on which the information on each three-line section of the observation form will be keypunched. The observer adds the necessary digits required to make the numbers consective from 1 to 130 for the school day.

Language

The predominant spoken language is coded for each minute except during breakfast, lunch, nap, snack and recess. The language coded is not limited to the language spoken by the teacher but is based on the total experience of the student during the minute. It is the language heard by the students under observation regardless of whether it is spoken by the teacher, aide, the student under observation, someone else, or a combination of these sources. The following codes are used to record language:

Blank = No language used. Silence.
1 = English was the predominant language.
2 = Spanish was the predominant language.
3 = An equal mixture of English and Spanish was heard.
4 = Undetermined (observer cannot hear).

Group Size

Group size is determined by the number of students involved in an activity with the student under observation. If no other students are involved in an activity with the observed student, group size is recorded as one. Therefore the group size is the number of students involved in the activity, including the student under observation.

Activities

Each minute of the school day is coded as belonging to one of the three following categories:

a. Formal Instruction: Formal instructional activities are those activities in which the student under observation works directly with an adult in a group or alone. The activities in which he or she is engaged are planned and have specific rules or expectations concerning student behavior. The key element is that the student's behavior is directed in some way by an adult.

Formal instructional activities are coded in one or two of the following manners:

1. A "1" is placed in the column under Formal Instruction for each minute the student under observation is engaged in a planned activity occurring under the direction of an adult.

   Formal instruction may occur outside of the regular classroom. For example, formal instructional activities occurring in the library or in other Early Childhood classrooms would be counted. (The observer in this case accompanies the students to the area and records whatever activity is occurring in the same manner as "inside the regular classroom" activities.) The exceptions to this rule are described below.

2. When students go outside the classroom to art, music, and PE, the time spent in these activities is coded with a "2" under Instruction. To record these activities the observer accompanies the student to the site of the class. Once the supervision by the new teacher begins, the observer leaves. A "2" is coded until the PE, music, or art instruction is completed. Regular coding begins again as the students line up and leave the room to go back to the regular classroom. No other information is coded when the students are at art, music, or PE.

b. Informal Learning Opportunities: There are also two classes of informal learning opportunities. Both types occur when the student is engaged in an activity where there is only incidental adult supervision or contact.

A "1" is coded when the student is working on a specific task following directions provided by the teacher. Activities coded under this classification are planned and are directed toward a specific outcome. For example, a student might be asked to create a Christmas scene using the materials provided or to build a house with blocks.

Activities coded with a "2" are those where the students are directed to a center to participate in "free play" activities. In these activities the student is not expected to produce a specific outcome. Examples are building something unspecified with blocks, playing house in the kitchen area, and reading a book. Another sort of activity coded with a "2" would be spontaneous opportunities "seized" by the teacher to make a noninstructional task instructional.

For example, if the teacher is passing out colored objects to students for some noninstructional purpose and she quizzes the students about the colors or remarks about the color each is receiving, then a "2" would be coded to record this spontaneous instructional event.

c. No Instruction: This classification pertains to activities which are not instructional; e.g., washing hands, standing in line, dividing students into groups, etc. Instructions for housekeeping and transition between activities are coded as no instruction. Six numbers are used to code different types of no instruction:

Breakfast	= 2
Lunch	= 3
Nap	= 4
Snacks	= 5
Recess	= 6
Other	= 1

If the student under observation awakens before the others during the nap time and begins doing something instructional, the proper instructional category is coded.

If the student under observation attends an assembly or participates in a planned "reward" activity (films, parties, etc.), the event should normally be coded as no instruction. If the reward activity becomes an instructional activity, the event should be coded as Informal Instruction 2.

Adult Instructional Involvement

The adults who were "working with children" in an instructional capacity during the minute are recorded in this section of the form. The observer should record any involvement by adults in the class in activities which would be coded as "Formal Instruction" or "Informal Learning Opportunities" above. The adult's involvement does not have to be his/her predominant activity for the minute; i.e., even transitory involvement by an adult would cause the person to be coded. Neither does the involvement need to be with the student under observation. Adult instructional involvement is indicated by writing a "1" under the appropriate heading(s) (Teacher, Aide, Student Helper, and Other) for the minute.

Adult instructional involvement must be verbalized or made highly visible by the adult in charge. An example of verbalized and visible adult instructional involvement would occur if the teacher or aide introduced a new fingerplay to the students (verbal) and if the teacher or aide led the students in the fingerplay without saying another word after the introduction, a "1" would still be placed in the appropriate column under Adult Instructional Involvement.

There are times when adult instructional involvement is left blank during formal instruction. For instance, when children (the student under observation must be included in this group of children) are watching TV and the teacher or aide does not comment on what is being seen, instructional involvement is left blank and instructional responsibility is coded as no one.

Instructional Responsibility

This section of the observation form is used to record the person primarily responsible for the instruction occurring each minute for the child under observation.

Instructional responsibility is not coded during no instruction. While the teacher is ultimately responsible for the educational activities occurring in her classroom, she is not indicated for each minute. What is of importance here is the person taking the immediate responsibility for providing or supervising the instructional activity. The decision of which person to code is determined by who is "in charge" (i.e., who is the instructional leader) during the minute.

An example. The aide is sitting at a table with a group of students watching them work on some instructional activity. Occasionally she makes comments to students about the work they do. The teacher walks by the table and stops for a few minutes to comment on the work being done by the students. How should such a situation be coded? Unless the teacher, during her time at the table, changes the nature of the task or in some other way indicates that she is "taking over" the lesson, the aide would be coded. Only one person is coded under this category for each minute. If the responsibility for the instruction is absolutely equally divided between two persons, then the person appearing first on the form as you move from left to right is coded. In this example, if the teacher joined the group and she and the aide shared equally in the leadership provided to the students, the teacher would be coded.

The observer records instructional responsibility by placing a 'I' under one of the following headings:

a. Teacher
b. Aide
c. Student Helper
d. Other
e. No One

Adult Contact

Adult contact is recorded each minute formal instruction or informal learning opportunity is coded. To record adult contact, the observer puts a "I" under the heading for each adult having contact with the student under observation during the minute. The observer should record any adult contact regardless of its instructional content or length of occurrence.

For the purpose of this observation form, any verbal statement addressed to the student under observation or the group to which he belongs or any physical contact between an adult and the student under observation is to be recorded as adult contact. Records or films do not constitute adult contact. If students are watching a film under adult supervision and the adult does not speak to or touch the student under observation, no adult contact is coded. If no adult contact occurs during the minute, "No One" is coded.

Curriculum Source

The information collected on this part of the form documents the amount of time spent in activities from different sources and is not coded during the actual observation. The point of transition into and out of each activity both formal and informal should be clearly marked on the coding sheet. In addition, notes in the notes column should clearly describe each formal or informal activity. At the end of the school day the observer will ask the teacher about the source of each formal activity (informal activities are not coded) so the activities can then be correctly recorded following the definitions given below.

a. BECP: A "1" is placed under this heading for each minute the student spent in an activity taken from the Bilingual Early Childhood Program (BECP) Curriculum. Activities from the BECP are likely to be found only in Title I Migrant early childhood classes.

   This column is also coded if the teacher and students engage in an activity which she developed using ideas from the BECP curriculum.

b. AISD: A "1" is placed under this heading for each minute the student spent in an activity from the curriculum developed for the Title I early childhood classes and are used in Title I Migrant classes as supplementary activities.

   As in the case of coding BECP, this column is also coded if the teacher and students engage in an activity which was developed using ideas or suggestions from the Title I early childhood curriculum.

c. OTHER: This column will not be used during analysis of data gathered with the coding sheets during the 1979-80 school year.

There are two instances during formal instruction when neither BECP or AISD curriculum sources are coded. They are as follows.

a. the teacher developed the activity completely on her own.

b. early childhood (Title I and Migrant) classes merge for a joint activity. All other categories such as instruction, instructional involvement, instructional responsibility and adult contact are coded.

Notes

The notes column on the form is important for recording descriptive information. This information can be useful in interpreting the results with the teacher. The notes column is also important in checking the form for coding errors after the observation has been completed. Each activity should be briefly described in this section.

Considerations and Steps Taken in Determining Observation Days for the Pre-Kindergarten Observations

Considerations:

A. Time frame for the observations was December 1, 1980 through May 1, 1981.

B. Two observers were hired. One could only work Wednesdays and Thursdays. The other could work 2/3 days a week--preferably Tuesday, Wednesday, and Thursday.

C. Since not all classes could be observed on both Monday and Friday, all Mondays and Fridays were excluded from possible observation days.

D. All staff development days (January 16 and March 20) were excluded, as were days before and after holidays. In the case of the Christmas holidays, the last observation was scheduled for two days before the holidays.

E. There were 84 full day observations to be conducted--3 for each of the 7 Title I classes and 7 for each of the 9 Migrant classes (including the two 50% Migrant/50% Title I classes).

F. With all exclusions, there were 56 possible observation days in which to do the 84 observations. One observer could do 37 observations if she worked every Wednesday and Thursday in that time frame. This left 47 observations to be conducted by the second observer on Tuesday, Wednesday, and Thursday.

G. The observations were broken into three relatively equivalent time periods:

	Interval	No. of Weeks	Observations
1)	December 1 → January 30	7 weeks	#1-28
2)	February 1 → March 13	6 weeks	#29-57
3)	March 16 → May 1*	6 weeks	#58-84

H. Each observer should observe each Title I class once and each Migrant class 3 to 4 times.

I. During each of the three time intervals, each Title I class should be observed once and each Migrant class at least twice.

J. As much as possible all of teacher X's observations should not always be on Tuesdays, etc.

Steps:

1. A list was numbered from one to 84.

2. Each Title I class was randomly assigned three times to different numbers on the list, one school name per number.

3. Each Migrant class (and the 2 split-funded classes) were randomly assigned seven times to different numbers on the list, one school name per number.

4. The observations were then randomly reassigned to be sure Considerations H, I, and J were met.

Note. Observations were conducted even if a substitute was present. Due to observer sickness, observer car trouble, and a classroom being painted, some observations were reshuffled. Considerations H, I, and J were met.

Attachment E-5

80.71

AUSTIN INDEPENDENT SCHOOL DISTRICT
Office of Research and Evaluation

November 18, 1980

TO: Title I and Title I Migrant Pre-K Teachers
Principals with Title I and Title I Migrant Pre-K Teachers

FROM: Catherine Christner, Title I Migrant Evaluator

SUBJECT: Pre-K Observations

As in the past, day-long observations will be conducted in Migrant and Title I pre-K classes. This year Title I has its observation resources tied up at the elementary level, so the observations will all be conducted by Title I Migrant. Each Migrant classroom (including Oak Springs and Ridgetop) will be observed seven times and each Title I classroom will be observed three times. The Title I classrooms are being observed as a control/comparison group for the Title I Migrant classrooms.

The observers will be using the same observation form used last year. The things to be observed are described on the attached pages.

The observations will begin in the first week of December. The principal and the teacher will be notified the week that observations are to occur, but not the exact day.

Past experience has shown that classroom observations do not upset the normal classroom activities. The observers have been trained to ensure that this remains true. If you have any questions, please feel free to call me at 458-1227.

Approved: _____
Director, Office of Research and Evaluation

Approved: _____
Acting Director, Elementary Education

CC:rrf,
Attachment

cc: David Doss
Lee Laws
Oscar Cantú
José Mata
Tiny Baranoff

EARLY CHILDHOOD OBSERVATION FORM: DESCRIPTION OF THE CATEGORIES

Language

The predominant spoken language heard by the students regardless of the source (student, teacher, etc.) is coded for each minute except during breakfast, lunch, nap, and recess.

Group Size

Group size is determined by the number of students involved in an activity with the student under observation. If no other students are involved with the observed student, group size is recorded as one.

Activities

Each minute of the school day is coded as belonging to one of the three following categories:

a. No Instruction: This classification pertains to activities which are not instructional; e.g., washing hands, standing in line, dividing students into groups, etc.

b. Formal Instruction: Those activities (usually under adult direction and supervision) which have been planned are coded as formal instruction.

c. Informal Learning Opportunities: Informal learning activity such as building with blocks or looking at a book. This category also includes activities which would normally be coded as "No Instruction" if there is a clear attempt by an adult to make the activity instructional. For example, lining up to go to lunch would be considered an informal learning if the teacher asked the students to group themselves in lining up by the color of their clothing.

Adult Instructional Involvement

The adults who are "working with children" in an instructional capacity anywhere in the classroom during the minute are recorded in this section.

Instructional Responsibility

This section is used to record the person primarily responsible for the instruction occurring each minute for the child under observation.

Adult Contact

Adult contact is coded to show which adults have contact with the student under observation during each minute of formal instruction or informal learning opportunity.

Curriculum Source

Each minute of formal instruction is attributed to one of three curriculum sources:

a. BECP: An activity taken from the Bilingual Early Childhood Program (BECP) curriculum.

b. AISD: An activity from AISD Early Childhood curriculum.

c. Other: An activity developed by the teacher or taken from a source other than the ones listed above. Adaptations of the AISD or BECP curricula are coded under those headings.

Attachment E-7

80.71

AUSTIN INDEPENDENT SCHOOL DISTRICT
Office of Research and Evaluation

TO: Title I and Title I Migrant Pre-K Teachers

FROM: Catherine Christner

SUBJECT: Pre-K Observations

Cynthia Agnell and Jane Mack will be conducting the pre-kindergarten observations this year. Mrs. Agnell or Mrs. Mack will be visiting your classroom sometime during the week of:

_____

to observe the classroom activities. Following each observation, the observer will share her notes with you, and within the following week, you will get a copy of her notes.

If you have any questions or concerns about the observations, please feel free to call me at 458-1227.

Approved: _____
Director, Office of Research and Evaluation

Approved: _____
Acting Director, Elementary Education

CC:rrf
cc: José Mata
Lee Laws
Oscar Cantú
Principals of Title I Migrant and Title I Pre-K Teachers

80.71

Classroom Observation Reaction Form

Austin Independent School District

If you wish to comment on today's observation of your classroom, please respond to these items and/or write any additional comments which would help us improve the observation process.

Circle the most appropriate choice.

A. The observation was conducted at a convenient time.

Completely False	Mostly False	Partly False Partly True	Mostly True	Completely True
1	2	3	4	5

Comments:

B. The classroom situations observed were representative of the normal activities of my class.

Completely False	Mostly False	Partly False Partly True	Mostly True	Completely True
1	2	3	4	5

Comments:

C. The classroom observer did not detract from the classroom activities nor the effectiveness of instructional activities.

Completely False	Mostly False	Partly False Partly True	Mostly True	Completely True
1	2	3	4	5

Comments:

Other comments concerning the observation:

Observation I.D. _____

Please fold, staple, and drop into the district mail. Thanks.

FILE ID A / P / Q

CARD FILE LAYOUT

LOCATION:

PROGRAM: Title I Migrant

AISD

YEAR: 1980-81

UT PF ____, ____, ____
acct. pass. file name

80.71

CONTENTS: Pre-Kindergarten Observations - Migrant & Title I

Field	Columns	Description
A	1 - 3	APQ
B	4 - 5	Class Assignments by School (See Attached School List)
C	6 - 6	Observer Number 6 = Jane Mack 7 = Cynthia Agnell
D	7 - 8	Observation Number
E	9 - 11	Card Number (Note - there are 130 cards per observation)
F	12 - 12	Language 0 = No Language 2 = Spanish 4 = Undetermined 1 = English 3 = English & Spanish
G	13 - 14	Group Size (Number Listed)
H	15 - 15	No Instruction 1 = Other 3 = Lunch 5 = Snack 2 = Breakfast 4 = Nap 6 = Recess
I	16 - 16	Formal Instruction (1 or 2)
J	17 - 17	Informal Learning Opportunities (1 or 2)
K	18 - 18	Teacher (1)
L	19 - 19	Aide (1)
M	20 - 20	Student Helper (1)
N	21 - 21	Other (1)

Instructional Involvement

E-35

Attachment B-9
(Page 1 of 2)

FILE ID A / P / Q CARD FILE LAYOUT LOCATION:

PROGRAM: Title I Migrant AISD

YEAR: 1979-80 UT PF ____, ____, ____
acct. pass. file name

CONTENTS: Pre-Kindergarten Observations--Migrant & Title I

Field	Columns	Description	
O	22 - 22	Teacher (1)	
P	23 - 23	Aide (1)	
Q	24 - 24	Student Helper (1)	Instructional Responsibility
R	25 - 25	Other (1)	
S	26 - 26	No One (1)	
T	27 - 27	Teacher (1)	
U	28 - 28	Aide (1)	
V	29 - 29	Student Helper (1)	Adult Contact
W	30 - 30	Other (1)	
X	31 - 31	No One (1)	
Y	32 - 32	BBCP (1)	Curriculum Used
Z	33 - 33	AISD (1)	
AA	34 - 34	Other (1)	
	35 - 57	Repeat pattern of fields F --> AA for the next minute of observation .	
	58 - 80	Repeat pattern of fields F --> AA for the next minute of observation .	

Note - each card contains 3 minutes of observation data.

30.71

Attachment E-9
(continued, page 2 of 2)

E-36

PRE-K SCHOOL LIST & OBSERVATIONS

01 = Brown 1

02 = Brown 2

03 = Maplewood

04 = Norman TITLE I

05 = Ortega

06 = Rosewood

07 = Sims

---

08 = Ridgetop

09 = Rosewood 50% TITLE I/50% MIGRANT

---

10 = Allison

11 = Brooke

12 = Dawson

13 = Maez MIGRANT

14 = Ortega

15 = St. Elmo

16 = Sanchez