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ABSTRACT

The purpose of this study was to determine whether or not differences in mean gains for reading and listening achievement, and components of the self concept were observable between pupils who participated in a 6-week summer language arts program and similar children who did not. The sample consisted of 80 disadvantaged Negro second graders and 70 disadvantaged Negro fifth graders. Half of the students attended the program and the others were controls. Treatment groups consisted of experimental and control pupils while factors of sex, grade, and entry level were concomitant variables. Major conclusions were that there was no evidence that pupils who participated in the summer program made significant gains in reading, listening achievement, or in self concept. (Author/PS)

THE EFFECTS OF A SUMMER COMMUNICATION SKILLS PROGRAM UPON SELECTED LANGUAGE ARTS SKILLS AND DIMENSIONS OF THE SELF CONCEPT OF DISADVANTAGED NEGRO PUPILS

By

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"The Effects of a Summer Communication Skills Program Upon Selected Language Arts Skills and Dimensions of the Self Concept of Disadvantaged Negro Pupils," a dissertation written by Ann T. Agnew, in partial fulfillment of the requirements for the degree Doctor of Education, has been approved and accepted by the following:

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The purpose of the study was to determine whether or not differences in mean gains for reading and listening achievement and components of the self concept (self esteem and identification) were observable between pupils who participated in a six-week summer language arts program and similar children who did not participate.

The sample consisted of 80 disadvantaged Negro second graders and 70 disadvantaged Negro fifth graders. Half of the second graders and half of the fifth graders attended the program; the remainder were controls.

A four-factor, treatments-by-blocks design was used to examine the data. Treatment groups consisted of experimental and control pupils; factors of sex, grade, and entry level were concomitant variables. Pupils scoring above the mean on pre-tests were designated high entry level students; pupils scoring below the mean were classified low entry level students.

Four hypotheses were tested:

1. No significant difference exists between experimental and control groups in mean gain scores of reading vocabulary; reading comprehension; and listening comprehension.

2. No significant interactions exist between or among factors of treatment group, grade, sex, or entry level status for mean gain scores of reading vocabulary, reading comprehension, and listening comprehension.

3. No significant difference exists between experimental and control groups in mean gain scores of

self esteem; identification with teachers; and identification with friends.

4. No significant interactions exist between or among factors of treatment group, grade, sex, or entry level status for mean gain scores of self esteem; identification with teachers; and identification with friends.

Hypotheses one and three were supported.

Hypothesis two was rejected. For reading vocabulary, there were three significant interactions: grade-by-sex; grade-by-entry level status; and treatment-by-grade-by-entry level status. A significant treatment-by-entry level status interaction was observed for reading comprehension. For listening comprehension, a four-way interaction involving treatment, grade, sex, and entry level status was obtained.

Hypothesis four was rejected for self esteem and accepted for identification. A significant grade-by-entry level status interaction occurred for self esteem.

On all six dependent variables, the main effect for entry level status was significant and favored low entry level groups.

CONCLUSIONS

1. There was no evidence that pupils who participated in the summer program made significant gains in reading or listening achievement.

2. There was no evidence that pupils who participated in the summer program made positive gains in self concept.

3. There was evidence that poorer-achieving pupils made greater gains in both achievement and self concept than children who were less retarded initially. This effect, however, could not be attributed to participation in the program: the poorer achievers in experimental and control groups made greater gains than the higher achievers.

RECOMMENDATIONS

Implications for further research include:

1. The use of stratified sampling procedures to examine gains achieved by pupils of varying degrees of reading disability during brief instructional programs.

2. Provision for collecting followup data on pupils participating in summer programs.

3. Examination of the possibility of differential impact upon pupil achievement and self concept when degree of emphasis upon skill-oriented and creative response activities are systematically varied.

4. Investigation into effects upon self concept when classroom-oriented strategies for facilitating positive growth in self perceptions have been utilized.

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CHAPTER I

THE PROBLEM AND DEFINITION OF TERMS USED

In today's society, the acquisition of economically and socially rewarded skills depends, in many instances, on facility with verbal communication, a primary responsibility of elementary and secondary schools. Unfortunately, for a sizable portion of the population, adequate development of basic skills in the areas of speaking, listening, reading and writing is not being realized.

This segment of the population is referred to as "culturally deprived," "socio-economically deprived," "socially and culturally disadvantaged," "chronically poor," "poverty stricken," "culturally alienated," and so on. Regardless of the label used to designate such individuals, these people -- of diverse ethnic and/or racial groups -- have common characteristics. Gordon and Wilkerson noted that the disadvantaged share, in general, such handicaps as

> . . . low economic status, low social status, low educational achievement, tenuous or no employment, limited participation in community organizations,

and limited ready potential for upward mobility.[1]

Focusing upon the income levels of this segment of the population, Witmer reported criteria for categorizing the numbers of people who could be described as poor, and concluded that in the early nineteen sixties, approximately 20 percent of American families were living in poverty.[2] Furthermore, the picture became bleaker when the status of nonwhite families in the southern United States was examined. According to Witmer, 40 percent of the nonwhite families with a male head living in the urban South could be classified as poverty stricken. This percentage jumped to 74 percent if the family lived in a rural area. Nonwhite families with a female head were in an even worse position. Eighty-six percent of nonwhite southern urban families with a female head living in the urban South were living in poverty,

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[1] Edmund W. Gordon and Doxey A. Wilkerson, Compensatory Education for the Disadvantaged (New York: College Entrance Examination Board, 1966), 2.

[2] Helen L. Witmer, "Children and Poverty," The Disadvantaged Child: Issues and Innovations, Joe L. Frost and Glenn R. Hawkes, editors (New York: Houghton Mifflin Company, 1966), 27.

and 90 percent of southern rural families with a female head were economically poor.[3]

Udall provided more recent data to support Witmer's findings in an address to the National Outlook Conference on Rural Youth. He concluded that one-third of the nation's rural population was defined by the federal government as living in poverty. Further, the median family income for rural Negroes in 14 southern states was less than fifteen hundred dollars per family.

Children from disadvantaged homes come to school with a life history which may severely impede their acquisition of basic communication skills. Such children, according to Cheyney,

> . . . suffer from poverty unknown to middle- and upper-class youngsters. The poverty runs the gamut from the cultural and intellectual to the economic and emotional. Exposure to unseemly and aggressive scenes in the homes and neighborhood is made inevitable by overcrowded living conditions, oftentimes in dilapidated, rundown dwellings. Inadequate and irregular diet compounds the problem.

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[3] Ibid.

[4] Morris K. Udall. "The Dilemma of Rural Youth." Speech presented at the National Outlook Conference on Rural Youth, October, 1967. Washington, D.C. ERIC ED 017 363.

> Culturally disadvantaged children lack facility in oral expression, both in vocabulary and in correct speech patterns. There is a higher incidence of personality disorders among the disadvantaged, and a comparably higher delinquency rate. The multiplicity of these problems causes disadvantaged children to have a very low concept of themselves as individuals.[5]

In an effort to improve the opportunity for such children to acquire competency in language skills, a parish (county) in rural Louisiana implemented a six-week program funded by Title I of the 1965 Elementary and Secondary Education Act. A major objective of the program was to improve the language arts skills of disadvantaged Negro children who were not developing such skills at the pace and level which could be expected in terms of their estimated intellectual capacity. Specifically, the teachers were advised to recommend those children for the program whose reading performance was below grade level, but whose intellectual functioning appeared to be within the normal range. Another major objective of the program was to modify each child's self

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[5]Arnold B. Cheyney. Teaching the Culturally Disadvantaged in the Elementary School (Columbus, Ohio: Charles E. Merrill Publishing Company, 1967), 20.

concept in a positive direction by providing a setting in which self selection and self pacing of learning activities could occur on a daily basis. It was assumed that such individualized learning activities maximized the child's prospects for successful participation, and thus might build the child's image of himself as an individual who could develop his skill in various areas of the language arts.

THE PROBLEM

Statement of the Problem

The present study was conducted in response to the expressed need of the parish school system to examine the impact upon pupils of the 1969 summer language arts program. Title I funds were utilized for similar programs during the summers of 1967 and 1968, but provision was not made for systematic collection and analysis of data concerning outcomes of the programs. This study was designed to furnish such information which would lead to recommendations for the structure and operation of future short-term programs within the system.

Purpose of the Study

The purpose of the study was to determine whether or not significant differences in mean gains for reading and listening achievement and components of the self concept were observable between children who participated in the program and similar children who did not take part in the program.

Specific Objectives

1. To measure significant differences, if any, between post-program gain scores of selected disadvantaged Negro second- and fifth-grade pupils who participated in the program and similar children who did not attend the program. Scores compared included gains in reading vocabulary, reading comprehension, and listening comprehension.

2. To measure significant differences between the post-program self concept, defined for this study as self esteem and identification with significant others, of selected disadvantaged Negro second and fifth graders who attended the program and similar children who did not participate.

Importance of the Study

In his review of studies related to disadvantaged rural youth, Edington commented:

> . . . During the last few years, a considerable amount of material was written about rural America, but little was based upon research.[6]

Further, a review of studies pertinent to short-term remedial programs indicated that, almost without exception, such studies were descriptive in nature. That is, the research design did not include control groups against which the performance of children participating in special programs could be compared. The present study was designed to provide data related to the effects of a short-term compensatory language arts program involving a sample of southern rural Negro children. The design of the present study did include control groups.

DEFINITION OF TERMS USED

Title I Schools

Title I schools refers to those schools which, according to the best information available, draw their

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[6] Everett D. Edington, "Disadvantaged Rural Youth," Review of Educational Research, XL (February, 1970), 69.

student body from areas with high concentrations of children from low income families; i.e., families with an annual income not exceeding three thousand dollars.[7]

Disadvantaged Children

Disadvantaged children refers to school populations as defined by Title I criteria under the 1965 Elementary and Secondary Education Act.

Listening Comprehension

Listening comprehension refers to the ability to recall, literally comprehend, and interpret verbal material presented orally.

Self Concept

Self concept refers to "an organized set of perceptions in regard to the self, along with an evaluation of the self."[8] In this study, self concept is viewed as types of perceptions concerning self. The specific perceptions considered in the study were defined as follows:

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[7]Title I Program Guide No. 36, Division of Compensatory Education, John F. Hughes, Director, Office of Health, Education, and Welfare, Washington, D.C., 2.

[8]Buford Stefflre in "Counseling Theory," 252-63, Encyclopedia of Educational Research (4th edition), Robert L. Ebel, editor (New York: The Macmillan Company, 1969),254.

Self esteem. Self esteem refers to an individual's perception of his worth derived from a lifelong series of comparisons of himself with other individuals important to himself.[9]

Identification. Identification refers to an individual's acceptance of another person as a model for the development of values, attitudes, appearance, and so on. In school-age children, it is assumed that teacher and peers, as well as parents, are sources of identification for the child.[10]

Experimental Group I

Refers to a selected group of 40 second-grade Negro children who participated in the summer program. The following criteria were applied to select the children for Experimental Group I: (1) all attended a totally Negro Title I school during the 1968-69 school term; (2) none had prior experience in the summer program; and (3) all scored at or below the thirty-second

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[9] Barbara H. Long, Edmund H. Henderson, and Robert C. Ziller, Manual for the Self-Social Symbols Method (first draft) (Newark: University of Delaware, undated), 11 (Mimeographed).

[10] Ibid., 14.

percentile on the total reading score of the Stanford Achievement Tests, administered in March, 1969.

Experimental Group II

Refers to a selected group of 35 fifth-grade Negro children who participated in the summer program. The following criteria were applied to select the children for Experimental Group II: (1) all attended a totally Negro Title I school during the 1968-69 school term; (2) none had prior experience in the summer program; and (3) all scored at or below the twenty-fifth percentile on the total reading score of the Stanford Achievement Tests, administered in March, 1969.

Control Group I

Refers to a selected group of 40 second-grade Negro children who did not participate in the summer program. These children were selected according to the criteria applied to Experimental Group I.

Control Group II

Refers to a selected group of 35 fifth-grade Negro children who did not participate in the summer program. These children were selected according to the criteria applied to Experimental Group II.

Summer Communication Skills Program

Summer communication skills program refers to the integrated language arts program conducted in St. James Parish, Louisiana, from June 9 through July 25, 1969. Instructional emphasis in this program was upon the development of skills needed to listen, speak, read, and write, proceeding from the level of achievement each pupil brought to the program. A description of the daily operation of the program is provided in Appendix A.

Centers

Centers refers to the building units which were utilized for the operation of the summer program. Selected pupils from 19 classrooms in six centers were involved in the study.

Instruments

Instruments refers to the tests administered to the pupils participating in the study. For the second-grade sample, these tests included the Gates-MacGinitie

Reading Tests - Primary B (Forms 1 and 2),[11] the Cooperative Primary Tests - Listening (Forms 12A and 12B),[12] and the Self Social Symbols Tasks (Primary Form).[13] The tests for the fifth-grade sample were the Gates-MacGinitie Reading Tests - Survey D (Forms 1 and 2),[14] the Sequential Tests of Educational Progress - Listening (Forms 4A and 4B),[15] and the Self Social Symbols Tasks (Primary Form).[16]

High Entry Level Score

High entry level score refers to a pupil's raw score which exceeded the mean score performance of his

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[11] Arthur I. Gates and Walter H. MacGinitie, Teacher's Manual for Gates-MacGinitie Reading Tests - Primary B (Forms 1 and 2)(New York: Teachers College Press, 1965).

[12] Handbook for the Cooperative Primary Tests (Princeton, New Jersey: Educational Testing Service, 1967).

[13] Barbara H. Long, Edmund H. Henderson, and Robert C. Ziller, Self Social Symbols Tasks (Primary Form) (Newark: University of Delaware, 1967). (Mimeographed)

[14] Arthur I. Gates and Walter H. MacGinitie, Teacher's Manual for Gates-MacGinitie Reading Tests - Survey D (Forms 1, 2, and 3)(New York: Teachers College Press, 1965).

[15] STEP Manual for Interpreting Scores - Listening (Princeton, New Jersey: Educational Testing Service, 1957).

[16] Long, Henderson, Ziller, op. cit.

group (Experimental I, Experimental II, Control I, or Control II) on any one of the criterion measures administered prior to the beginning of the summer program.

Low Entry Level Score

Low entry level score refers to a pupil's raw score which fell below the mean score performance of his group (Experimental I, Experimental II, Control I, or Control II) on any one of the criterion measures administered prior to the beginning of the summer program.

Gain Score

Refers to the algebraic difference between the pre-test scores of an individual and the post-test scores for the same individual obtained from each pair of tests utilized in the study. All statistical analyses in the study were based upon gain scores.

ASSUMPTIONS

1. Negro children participating in the study were representative of the underachieving, disadvantaged Negro students who attended Title I schools in St. James Parish, Louisiana, in 1968-69.

2. Significant socioeconomic differences did not exist among the pupil populations of each center involved in the study.

3. Teachers participating in the summer program were competent, as appraised by their principals and the director of instruction, in teaching of the language arts.

4. Teachers participating in the summer program were competent, as appraised by the experimenter, in the administration of the test instruments.

5. The test instruments utilized in the study were valid for the purposes of the study.

HYPOTHESES

Four null hypotheses were examined in this study:

Hypothesis I

No significant difference exists between the experimental and control groups in mean gain scores of: (1) reading vocabulary; (2) reading comprehension; and (3) listening comprehension.

Hypothesis II

No significant interactions exist between or among the factors of treatment group, grade, sex, or

entry level status for mean gain scores of: (1) reading vocabulary; (2) reading comprehension; or (3) listening comprehension.

Hypothesis III

No significant difference exists between the experimental and control groups in mean gain scores of: (1) self esteem; (2) identification with the teachers; and (3) identification with friends.

Hypothesis IV

No significant interactions exist between or among the factors of treatment group, grade, sex, or entry level status for mean gain scores of: (1) self esteem; (2) identification with teachers; and (3) identification with friends.

DELIMITATIONS OF THE PROBLEM

The following delimitations should be considered when interpreting the results of this study:

1. The study was limited to a sample drawn from six all-Negro elementary schools in the St. James Parish, Louisiana, school system.

2. The study was limited to a sample drawn from Title I schools in the St. James Parish, Louisiana, school system.

3. The study involved selected pupils from 19 classrooms in six centers.

4. Interpretation of the test data gathered in the study is limited to the second- and fifth-grade Negro student population in the St. James Parish, Louisiana, school system.

5. The study was limited to 30 days of instruction beginning June 12, 1969 and ending July 23, 1969.

ORGANIZATION OF THE REMAINDER OF THE DISSERTATION

In Chapter II, a review of related literature and the rationale of the study is presented.

Chapter III provides a description of the design of the study and the instruments and procedures utilized in collecting the data.

An analysis of the data is presented in Chapter IV.

Chapter V includes a summary of the study, conclusions, and recommendations for further research.

CHAPTER II

REVIEW OF LITERATURE

The purpose of this study was to determine whether or not students who participated in a summer language arts program made significant gains in reading and listening achievement and/or positive gains in self concept, when compared to similar children who did not receive any academic instruction. The program was conceived and implemented as a language arts approach to instruction: the instructional objectives encompassed more than improvement in reading and listening. Many opportunities were to be available for children to make use of their speaking abilities and, where appropriate, to express their ideas through creative writing experiences. Further, language arts skills were perceived as areas in which development was influenced by the value pupils assigned to themselves as learners. Thus, the organization of the program was designed to maximize teacher opportunities to meet individual pupil needs and to minimize instances of pupil failure.

Ideally, assessment of achievement outcomes of the program would have involved some means of measuring

growth in speaking and writing skills as well as listening and reading improvement. Several considerations led to the decision to limit achievement testing to the areas of reading and listening.

Primarily, several previous studies demonstrated that under certain conditions, instruction in listening skills had a positive effect upon reading achievement. Since a major goal of the program was reading improvement and the program provided opportunity for daily listening experiences, it was considered appropriate to measure the reading and listening outcomes of the program. Moreover, the Title I proposal submitted by the parish to the U.S. Office of Education included provision for measurement of reading gains.

Additionally, considerations of time and ease of test administration required a focus upon those program outcomes which could be assessed by means of group measurement. Instruments for assessing group gains in reading, listening and self concept were readily available. Group assessment of speaking skills was not possible, and among the second-grade groups, measurement of writing skills was not feasible, since a number of pupils were still at the dictation level in their compositional abilities.

In the remainder of this chapter, a review is presented of previous studies related to the following concerns: (a) the relationship between reading and listening achievement; (b) the relationship between self concept and scholastic success; and (c) the description, design, and outcomes of summer programs. The chapter concludes with a rationale for the present study.

THE RELATIONSHIP OF READING AND LISTENING

Verbal communication is generally regarded as involving the acts of transmission and reception. Speaking and writing involve the transmission or output of ideas; listening and reading make up the receptive or input half of the communication act. Since listening and reading are somewhat analogous processes, the close relationship between the two has been assumed at the common sense level, and research evidence has supported this assumption.

Early investigations concerned with this relationship were frequently correlational studies in which the results of reading tests were correlated with scores on listening tests. Duker summarized 23 studies completed during or before 1960, and reported that coefficients of

correlation between listening and reading tests ranged from .45 to .70 with a mean of .59.[1] The broad range of the correlations, he reasoned, was probably the result of the differing sample populations and the variety of tests used to measure reading and listening skills. "However," he concluded, "all these studies show a strong positive relationship between listening and reading."[2] More recent correlational studies involving middle-grade samples support the earlier findings.

Fawcett obtained a correlation of .585 between the STEP listening test and reading comprehension, as measured by the Iowa Tests of Basic Skills.[3] A similar correlation (.537) was found between the STEP listening test and the total language score of the Iowa battery. Winter reported the following correlations between the STEP listening test and the SRA Achievement Tests: .53 (listening and reading comprehension); .51 (listening

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[1]Samuel Duker, "Listening and Reading," Elementary School Journal, LXV (March 1965), 321-9.

[2]Ibid., 322.

[3]Annabel E. Fawcett, "The Effect of Training in Listening Upon the Listening Skills of Intermediate Grade Children," Dissertation Abstracts, XXV: 7108-9, 1965.

and reading vocabulary); .54 (listening and total reading).[4] A correlation of .61 between an unpublished listening test and the total reading score of the Stanford Achievement Test was reported by Trivette.[5] Devine found a correlation of .65 between a test of critical listening designed by himself and the paragraph meaning subtest of the Stanford Achievement Tests.[6] Correlations exceeding .60 were also reported by Brown,[7] Cleland and Toussaint,[8] and Reeves.[9]

Although the correlations between reading and listening tests have been consistently substantial and

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[4]Clotilda Winter, "Listening and Learning," Elementary English, XLIII (October, 1966), 569-72.

[5]Sue E. Trivette, "The Effect of Training in Listening for Specific Purposes," Journal of Educational Research, LIV (March, 1961), 276-7.

[6]Thomas G. Devine, "The Development and Evaluation of a Series of Recordings for Teaching Certain Critical Listening Abilities," Dissertation Abstracts, XXII: 3546-7, 1962.

[7]Charles T. Brown, "Three Studies of the Listening of Children," Speech Monographs, XXXII (June, 1965), 129-38.

[8]Donald L. Cleland and Isabella H. Toussaint, "The Interrelationships of Reading, Listening, Arithmetic Computation and Intelligence," Reading Teacher, XV (January, 1962), 228-31.

[9]Harriet R. Reeves, "The Effects of Training in Listening Upon Reading Achievement," Dissertation Abstracts, XXVI: 7181-2, 1966.

positive, Ruddell emphasized that such studies had limited value in determining the nature of the relationship between listening and reading:

> . . . correlational studies are limited as to the clarity of relationships between variables. This is to say that a cause-effect relationship is not established through correlational analysis. The common, but imperfectly defined variable of intelligence, for instance, may account for a significant portion of the relationship observed between listening comprehension and reading comprehension.[10]

Devine also questioned the magnitude of the correlations frequently reported, and recommended that further correlational studies be delayed until purer tests of listening ability could be developed:

> It cannot be said that high, positive correlations between listening and reading test scores demonstrate anything more than that both kinds of tests seem to measure the same thing, probably verbal comprehension.[11]

More direct evidence for the interrelation of listening and reading was provided by a major

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[10] Robert B. Ruddell, "Oral Language and the Development of Other Language Skills," Elementary English, XLIII (May, 1966), 493.

[11] Thomas J. Devine, "Reading and Listening: New Research Findings," Elementary English, XLV (March, 1968), 348.

factor-analysis study conducted by Holmes and Singer.[12] This research was cited by Duker as a major contribution toward establishing the importance of listening ability for reading achievement.[13] Holmes and Singer utilized test data from a sample of 400 high school students to determine the factors which contributed to the ability to read with speed and power. The factor analysis accounted for 75 percent of the variance for power of reading; 16 percent of this variance was attributable to listening ability. In other words, more than 21 percent of the variance accounted for was the listening factor.[14] In the case of speed of reading, 55 percent of the variance was accounted for in the analysis. Of this variance, 14 percent, or more than a quarter of the variance accounted for, was traced to listening ability.[15] Duker stated that this study furnished

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[12] Jack A. Holmes and Harry Singer, The Substrata - Factor Theory: Substrata Factor Differences Underlying Reading Ability in Known Groups. (Berkeley, California: University of California, 1961). As cited in Duker, op.cit., 325-6.

[13] Duker, op. cit., 325-6.

[14] Ibid., 325.

[15] Ibid.

> . . . dramatic evidence of the role played by listening skills in the reading process. The vital importance of [listening] skills to the teacher of reading cannot be exaggerated. [The results] leave no doubt that listening ability plays a vital role in determining reading success or failure.[16]

Another approach to investigating the reading-listening relationship has been utilized by several researchers. In these studies, the question posed has been: Will training in listening improve reading achievement? The results of such studies have not been entirely consistent, but there appears to be a trend toward improvement in reading when instruction in listening skills is focused upon those elements which have rather direct counterparts in the act of reading. Three early studies involving middle-grade children indicated that instruction in specific listening skills had a positive effect upon reading for the same purposes; for example, listening for main ideas improved reading for main ideas.

Marsden provided one lesson per week in which instruction in listening for main ideas, for recalling

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[16] Ibid., 325-6.

details, and for drawing conclusions was given.[17] The Gates-Peardon Practice Exercises in Reading were adapted for use as listening materials. One hundred and sixteen pairs of fifth and sixth graders initially matched for sex and reading achievement participated in the study. The experimental group received specific listening instruction over an eight-week period. Analysis of the results of the Gates Basic Reading Tests, Types A, B, and D, administered at the end of this period, revealed that the experimental group had made significant gains over the control group in reading to note details, to identify main ideas, and to draw conclusions.

Similar results were obtained in a companion study conducted by Lewis.[18] He studied 135 pairs of fourth, fifth, and sixth-grade pupils initially matched

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[17] Ware H. Marsden, "A Study for the Value of Training in Listening to Achievement in Reading." Unpublished doctoral field study, Colorado State College of Education, 1951. As cited in Estoy Reddin, "Informal Listening Instruction and Reading Improvement," Reading Teacher (May, 1969), 742-3.

[18] Maurice S. Lewis, "The Effect of Training in Listening for Certain Purposes Upon Reading for the Same Purposes," Journal of Communication 11 (November, 1952), 81-4, 111. (November, 1953), 115-9.

for intelligence and reading achievement to determine the effects of training in listening for the same purposes as provided in the Marsden study. Thirty lessons in each of the three skills (noting details, identifying main ideas, and drawing conclusions) were administered to the experimental pupils. The Gates-Peardon materials were again adapted for listening purposes. At the conclusion of the training period, the experimental pupils, overall, were significantly superior to the control group in reading for all three purposes. When the data were analyzed by grade level, the fifth-grade experimental group maintained its superiority in all three reading skills, while the sixth-grade experimental group was significantly superior in reading for general significance. There were no significant differences between the fourth-grade groups. Apparently, the effect of listening instruction upon reading skills favored the older children.

In the third member of this group of studies, Kelty conducted an investigation in which a group of 94 fourth-grade students were given 30 daily practice periods in listening for details, main ideas, and drawing

conclusions.[19] The practice materials consisted of exercises drawn from reading workbooks. A control group, matched with the experimental pupils for reading achievement and intelligence, received no special listening training. When the two groups were post-tested with the Gates Basic Reading Tests, Types A, B and D, the results indicated that the children who had received special listening training made significantly greater gains in reading to note details. The results for reading for main ideas and drawing conclusions tended to favor the experimental pupils, but the difference between the experimental and control groups was not statistically significant.

The outcome of the Marsden, Lewis and Kelty studies generally favored the experimental groups when reading gains were examined. However, it should be noted that in all three cases, the listening lessons were parallel to specific reading skills. Further, the reading measures utilized in the studies tested the skills

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[19] Annette P. Kelty, "An Experimental Study to Determine the Effects of Listening for Certain Purposes Upon Achievement in Reading for Three Purposes," Unpublished doctoral field study. Greeley: Colorado State College of Education, 1953. As cited in Reddin, op. cit., 743.

stressed during the listening lessons. The results also seemed to favor the older children in the experimental groups: fifth and sixth graders tended to show more growth in specific reading skills than did the fourth graders after exposure to specific listening lessons. Two more recent studies, however, suggest that younger children can profit from training in listening, and that such training has a favorable impact upon reading achievement.

In a carefully designed study, Kellogg investigated the effects of a structured and an unstructured listening program upon first graders.[20] Over 800 first graders in 33 classrooms were involved in the study. In half of the classrooms, a language experience approach to language arts instruction was utilized; a traditional language arts program was conducted in the other classrooms. The structured listening program, which involved 40 twenty-minute lessons in specific listening skills, was conducted in half of the classrooms; in the other classrooms, an unstructured listening program which stressed

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[20] Ralph E. Kellogg, "A Study of the Effect of a First Grade Listening Instructional Program Upon Achievement in Listening and Reading," Dissertation Abstracts, XXVIII: 395-A, 1967.

listening to selections from children's literature was conducted. A three-way analysis of covariance was used to analyze the data for listening and reading achievement. In general, significant gains in listening skill favored the pupils in the structured listening program. Several additional findings of direct pertinence to the present study were also reported:

1. Boys in traditional language arts classrooms who received structured listening lessons made statistically significant gains over boys in similar language arts programs who received unstructured listening lessons in all five reading skills measured (word meaning, paragraph meaning, reading vocabulary, word study skills, and total reading);

2. No significant differences in any of the reading skills were found between girls in a traditional language arts program who received structured listening lessons and those who participated in the unstructured program;

3. Both girls and boys in the language experience approach to language arts instruction who received structured listening lessons made significantly greater achievement in reading vocabulary over pupils in a similar language arts program who received unstructured listening lessons; and

4. Boys in the structured listening program within the language experience approach made significantly greater gains in word study skills over boys in a language experience program who received unstructured listening experiences.

The author concluded that "all significant differences in achievement in all treatment groups were in favor of the structured listening program."[21] Further, the positive effects of structured listening experiences upon reading skills were especially noticeable among the boys, the sex group which is usually more vulnerable to reading difficulties.

In another study involving six first-grade classrooms, Thorn developed a series of listening lessons concerned with: (1) noting details; (2) determining main ideas; (3) following the sequence of ideas; (4) making inferences; (5) using context clues for word meaning; and (6) forming sensory images.[22] These lessons were presented

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[21] Ibid.

[22] Elizabeth A. Thorn, "The Effect of Direct Instruction in Listening on the Listening and Reading Comprehension of First-Grade Children," ERIC ED 027-693, 1968.

to two of the first-grade classes at the rate of two per week during the school year. Two other first-grade classes received a special oral language program, but no specific listening instruction. The remaining classes received no special treatment. All of the classes had been matched for intelligence and reading readiness scores in the fall. When post-tests of reading and listening were administered in the spring, the children who received direct training in listening were superior in their listening scores at the .003 level to either one or both of the control groups. At the .06 level, the reading comprehension scores of the direct listening instruction group were superior to both of the control groups. Use of the special oral language control group indicated that the Hawthorne effect could not account for the better performance of the pupils in the direct listening instruction program. Thorn concluded that listening comprehension could be improved with direct instruction when basal reading materials were adapted for use as orally presented materials. Further, there was evidence that such listening instruction had a transfer effect upon reading ability. The experimenter recommended that this transfer effect be investigated with other

samples of children in which low socioeconomic levels were represented.

There is, on the other hand, evidence which does not support the positive effects of listening training upon reading achievement. Such studies also involved elementary school pupils and were designed to expose children to instruction in specific listening skills.

One of Madden's purposes was to determine whether practice in study-type listening skills would result in improvement of the same skills in reading.[23] He devised a series of study-skills lessons from a fourth-grade science book. One experimental group of fifth graders (six classrooms) practiced with the materials by reading them during daily 25-minute periods for four weeks. The second experimental group (six classrooms) was exposed to the same materials for the same length of time; however, this group listened to the materials. Six other classrooms served as controls. The results of the study were inconclusive. No statistically significant differences in

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[23]Theodore M. Madden, "The Effect of Instruction and Practice in Certain Skills Through the Media of Reading and Listening Upon Various Aspects of Proficiency in Reading and Listening," Dissertation Abstracts, XX (Part 2): 2178-9.

either reading or listening achievement among the groups was demonstrated after the four-week period. The experimenter concluded that a similar study should be done where the criterion tests administered would be highly related to the kind of listening practice provided. The tests used in this study were the STEP listening test and the STEP reading tests. In the opinion of the experimenter, neither of these tests provided sufficient sampling of the kinds of skills the experimental groups utilized during the practice sessions.

Similar results were reported by Hollingsworth, who utilized a control and experimental group of fifth-grade children initially matched for intelligence and reading achievement.[24] Over a ten-week period, the experimental group was exposed to the Listen and Learn program developed by the Educational Development Laboratories at the rate of three lessons per week. The control group received no special instruction in listening. Post-testing revealed no significant differences between the two groups in reading achievement, listening achievement,

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[24] Paul M. Hollingsworth, "So They Listened: The Effects of a Listening Program," Journal of Communication, 1 (March, 1-65), 14-16.

or study skills. The experimenter concluded that more teacher involvement than that provided by the Listen and Learn program was needed to cause improvement in these areas. Further, general tests of reading and listening did not provide adequate measurement of the skills practiced by the experimental group.

Merson investigated the effect of planned listening lessons upon the listening comprehension, reading comprehension and reading vocabulary of 12 classrooms of fourth-grade pupils.[25] Six of the classrooms received 45 planned lessons in listening devised by the experimenter; the remaining classes received no special listening instruction. Post-testing of the two groups on the STEP listening test revealed that significant gains in listening were made by the experimental group. However, no significant gains in reading were made by either the experimental or control groups. In this study, as in the Madden investigation, there was little similarity between the content of the instructional materials and the test materials.

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[25] Edna May Merson, "The Influence of Definite Listening Lessons on the Improvement of Listening and Reading Comprehension and Reading Vocabulary," Dissertation Abstracts, XXII (Part 4): 3120-1, 1961.

At the fourth-grade level, Reeves devised 30 tape-recorded lessons which stressed listening for main ideas and details.[26] As in the Marsden and Lewis studies, the listening lessons were adaptations of the Gates-Peardon Reading Exercises. Her sample consisted of approximately 400 fourth graders, half of whom served as controls. The listening lessons were substituted for part of the reading lessons of the experimental group over a 15-week period. Analysis of the scores obtained on the Metropolitan Reading Achievement Test, administered to both groups before and after the experimental treatment, indicated no significant difference in mean gain for listening or reading in either group. When the same tests were administered four and a half months later, both the experimental and control groups had made significant gains in listening and reading; however, there was no significant difference between the groups in mean gain in listening; and in reading, the delayed test favored the control group on one of the subtests of reading. The experimenter concluded that "the findings of this study indicate that perhaps no training

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[26] Reeves, op. cit.

in listening is better than training of the type described herein."[27] On the other hand, the fact that the listening lessons took the place of a portion of the time devoted to reading instruction for the experimental group suggests that the effectiveness of training in listening for the purposes of improving reading is contingent upon the listening lessons being an adjunct to, rather than a substitute for, direct reading instruction.

The seemingly conflicting results of the studies concerned with the effect of training in listening upon reading achievement appeared to be resolved when there was a close similarity between the skills practiced in listening sessions and the skills measured in reading tests. That is, improved reading is likely to occur when the listening and reading tasks are similar. Devine, in his review of the Hollingsworth and Reeves studies, concluded:

> This research evidence does not invalidate the assumption that listening(or reading) instruction affects competence in reading (or listening) . . . These studies do make clear, however, that it is difficult, if not impossible, to suggest that teachers

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[27] Ibid., 7182.

> teach general listening (or reading) to help pupils become better readers (or listeners).[28]

Apparently, the efficacy of listening training upon reading improvement is contingent upon a close parallel between the specific listening and reading skills. In this regard, Duker commented:

> . . . it seems most likely that instruction in listening skills which have much in common with reading skills may be extremely effective in improving reading. The greater receptivity that many children might feel toward such an aural program is a potent argument in its favor. It is, however, not likely that any sort of pedestrian listening instruction will have any great effect on reading, but an enlightened approach that emphasizes pupil-discovered generalizations gives promise of great effectiveness.[29]

SELF CONCEPT AND SCHOOL ACHIEVEMENT

During the first half of the twentieth century, concern for legitimatizing psychology as a science -- by way of the Behavioristic school -- led to neglect of such constructs as the conscious or phenomenal self. However, interest in the role of the self in personality theory

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[28] Devine, "Reading and Listening: New Research Findings," 347.

[29] Duker, op. cit., 324.

was renewed during the years just prior to 1950. The writings of Lecky,[30] Rogers,[31] Snygg and Combs,[32] and Maslow,[33] among others, postulated the central role of an individual's view of himself in the interpretation of his behavior. Snygg and Combs, who have been labeled "phenomenologists" because of the importance they assign to the conscious thoughts and feelings concerning the self, stated as their basic postulate that "all behavior, without exception, is completely determined by and pertinent to the phenomenal field of the behaving organism."[34] This postulate, and many variations of it, gave impetus to research concerning the relationship of perceived self (self concept) and achievement.

Wylie, in a now classic compilation of pertinent research, critically reviewed 15 early studies concerned

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[30] P. Lecky, Self Consistency, a Theory of Personality (New York: Island Press, 1945).

[31] Carl R. Rogers, Client-Centered Therapy (Boston: Houghton, Mifflin Co., 1951).

[32] Donald Snygg and Arthur W. Combs, Individual Behavior: A New Frame of Reference for Psychology (New York: Harper and Brothers, 1949).

[33] Abraham H. Maslow, Motivation and Personality (New York: Harper and Row, Pub., 1954).

[34] Snygg and Combs, op. cit., 15.

with the effects of success or failure upon self image.[35] Although she expressed reservations concerning the different assumptions, procedures, and instruments employed in the studies, Wylie tentatively concluded that individuals are likely to alter their self-evaluation following a success or failure experience induced by an experimenter.[36] Several studies completed since 1960 have established that feelings of success or failure concerning patterns of academic achievement also are related to evaluations of self concept.

Brookover, et al, conducted a six-year study of self concept and school success.[37] After developing an instrument to measure pupils' perceptions of themselves as learners, the experimenters administered the instrument to over 1,000 seventh graders and reported several substantial correlations. With the effect of intelligence

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[35] Ruth C. Wylie, The Self-Concept: A Critical Study of Pertinent Research Literature (Lincoln: University of Nebraska Press, 1961).

[36] Ibid., 198.

[37] Wilbur B. Brookover, Ann Paterson and Shuler Thomas, Self-Concept of Ability and School Achievement (East Lansing: Michigan State University, Office of Research and Publications, 1962).

partialled out, the self concept-GPA correlation was .42 for males and .39 for females.[38] However, when the IQ-GPA correlation (with self concept partialled out) was compared to the multiple correlation of IQ plus self concept to predict GPA, the correlation increased from .48 to .69 for males, and from .53 to .72 for females.[39] Further, over a six-year period involving the same sample population, positive and substantial correlations between self concept and scholastic success were maintained.[40]

Utilizing the Brookover instrument at the college level, Jones found that the self concept as a learner score was "the most effective and consistent predictor [of scholastic achievement], even better than the Scholastic Aptitude Test."[41] He concluded that non-intellectual factors such as the self concept were viable

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[38] Ibid., 40. [39] Ibid.

[40] Wilbur B. Brookover, E. L. Erickson, and L. M. Joiner, Self-Concept of Ability and School Achievement. III: Relationship of Self-Concept to Achievement in High School (East Lansing: Michigan State University, Office of Research and Publications, 1967).

[41] John G. Jones, "Measures of Self Perception as Predictors of Scholastic Achievement," Journal of Educational Research, LXIII (January, 1970), 203.

predictors of achievement at the college as well as at the high school level. It was possible, even, that self concept -- at least when measured by the Brookover instrument -- was equal to or better than standard measures of intelligence or aptitude in predicting scholastic success.

Correlational studies at the elementary school level also have yielded significant and positive r's between self concept and school achievement. At the middle-grade levels, correlations ranging from .32 to .58 have been reported by Coopersmith,[42] Piers and Harris,[43] Bledsoe,[44] and Caplin.[45]

As in the case of studies concerning the relationship of listening and reading, avenues of research other than a correlation approach have been explored to determine

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[42]Stanley Coopersmith, "A Method for Determining Types of Self-Esteem," Journal of Abnormal and Social Psychology, LIV (February, 1959), 89-94.

[43]Ellen Piers and Dale B. Harris, "Age and Other Correlates of Self Concept in Children," Journal of Educational Psychology, LV (April, 1964), 91-5.

[44]Joseph C. Bledsoe, "Self-Concepts of Children and Their Intelligence, Achievement, Interests, and Anxiety," Childhood Education, XLIII (March, 1967), 436-7.

[45]Morris D. Caplin, "The Relationship Between Self Concept and Academic Achievement," The Journal of Experimental Education, XXXVII (Spring, 1969), 13-6.

the association between self concept and school achievement. A common research paradigm has been to identify pupils with similar levels of measured intelligence who differed in their history of scholastic achievement. A measure of self concept has been administered to the samples and a comparison made between the level of self esteem for the high (or adequate) achievers and the low achievers.

Shaw, Edson and Bell compared the results of a self-descriptive adjective checklist administered to high school juniors and seniors who were considered adequate achievers (cumulative GPA of at least 2.0) or under-achievers (cumulative GPA of 1.75 or below).[46] All 87 students had a measured IQ of at least 113. The results indicated that there was a pronounced difference between the self description of male achievers and male under-achievers. The latter group described themselves more frequently as immodest, reckless, mischievous, argumentative and restless. The male achievers, on the other hand, assigned to themselves such attributes as stable,

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[46] M. C. Shaw, K. Edson, and H. Bell, "The Self Concept of Bright Underachieving High School Students as Revealed by an Adjective Checklist," Personnel and Guidance Journal, XXXIX (November, 1960), 193-6.

reliable, optimistic, clear-thinking, and intelligent more often than did their underachieving counterparts. The results for female achievers and underachievers were not so clear-cut; only for the adjectives "ambitious" and "responsible" did the female achievers exceed the underachieving female students. The experimenters concluded that male achievers feel more positively about themselves than male underachievers, while female underachievers tend to have ambivalent feelings toward themselves.

A followup study was completed by Shaw and Alves to verify the results of the earlier study and to gain additional insight into the sex difference which appeared to exist between the self description of achievers and underachievers.[47] In this study, the results of the Bill's Index of Adjustment and Values for 78 high school juniors and seniors were examined. All students had an IQ of at least 110. Achievers were defined as those students having a cumulative GPA of at least 3.0. Underachievers were those students who had a cumulative GPA of 2.5 or below. On the six variables tested, three areas of

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[47] M. C. Shaw and G. J. Alves, "The Self-Concept of Bright Academic Underachievers Continued," Personnel and Guidance Journal, XLII (December, 1963), 401-3.

significant difference existed between the male achievers and underachievers. The underachievers rated themselves lower on self-concept, self-acceptance, and peer self-acceptance. Female underachievers rated themselves significantly lower on peer self-concept and peer self-acceptance.

The results of this study tended to confirm the outcome of the earlier study. Further, there were indications of a difference in the general perceptual mode of male underachievers and female underachievers:

> . . . the negative perceptual attitudes of male underachievers appeared to revolve primarily around themselves while the negative attitudes of female underachievers appeared to be centered on the perceptions of others of themselves.[48]

Whether or not a difference in general perceptual style of viewing themselves existed between the sexes, these studies indicated that underachievers of both sexes suffered more negative feelings about themselves than did peers whose academic achievement was more in line with their intellectual ability.

In a related study, Fink employed the judgments of three psychologists concerning the self-concepts of

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[48] Ibid., 402.

pairs of achievers and underachievers.[49] Twenty pairs of ninth-grade boys and twenty-four pairs of ninth-grade girls were studied. All students had a measured IQ in the 90-110 range; underachievement was defined as a GPA below the class median. Consistently, the three psychologists rated the achievers as far more adequate in their self concepts than the underachievers. As in the studies cited earlier, Fink concluded that the relationship between self concept and underachievement appeared stronger in boys than in girls.

A more recent study of gifted students at the elementary school level supported the results of the earlier studies. Durr and Schmatz studied personality differences between gifted high and low achievers in the fourth, fifth, and sixth grades.[50] All 81 students scored above the ninetieth percentile on the Lorge-Thorndike Non-Verbal Intelligence Test. Approximately half the group scored above the ninetieth percentile on the total score of

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[49] M. B. Fink, "Self-Concept as it Relates to Academic Achievement," California Journal of Educational Research, XIII (February, 1962), 57-62.

[50] W. K. Durr and R. R. Schmatz, "Personality Differences Between High-Achieving and Low-Achieving Gifted Children," Reading Teacher, XXII (January, 1964), 251-4.

the California Achievement Test battery; the other students scored below the sixtieth percentile. The latter group were considered to be low achievers. Data for the study were gathered from the results of the California Personality Test, and two non-standardized personality measures administered to the students.

Of the nine comparisons made between the high and low achievers, five of these were significantly different and favored the high-achieving children. The low achievers exhibited less self reliance, less sense of personal worth and freedom, and a reduced feeling of belonging. Additionally, the low achievers were more prone to feelings of inadequacy, a negative attitude toward school in general, and less satisfaction with the quality of their school work. A particularly interesting result of this study was that, as a group, the low achievers scored above the fiftieth percentile on the self concept measures; but even so, the scores for the low achievers group were significantly below the mean of the scores for the high achievers.

Apparently, too, the relationship between academic achievement and self concept is not restricted by racial membership. Soares and Soares had concluded that in segregated settings, the self image of black school

children was not significantly lower or more negative than the self concept of white students.[51] Moving from this position, Fredricks investigated whether or not the tendency for poor self esteem associated with low academic achievement would hold in a segregated setting.[52] He administered a self esteem scale to 78 black inner-city sixth graders, and analyzed the results in terms of the students' overall grade point average, reading level, and IQ scores.

Fredricks found the mean self esteem score significantly higher for the high GPA group over the low GPA group. The same results were found for the high readers over the low readers. No significant difference in mean self esteem scores was found between the high and low intelligence groups.

There is also evidence that the relationship between school success and self concept is maintained across grouping procedures. Dyson compared the academic

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[51] A. T. Soares and L. M. Soares, "Self Perceptions of Culturally Disadvantaged Children," American Educational Research Journal, VI (January, 1969), 42.

[52] Allen H. Fredricks, "Relationship of Self Esteem of Disadvantaged to School Success," Journal of Negro Education, XL (Spring, 1971), 117-20.

self concepts of homogeneously-grouped seventh graders with the self concepts of heterogeneously-grouped seventh graders.[53] Regardless of grouping procedures, high achievers consistently reported significantly more positive academic self concepts than did the low achievers.

In the studies reviewed so far, the results have been consistent: pupils who have a history of academic success report a higher level of self esteem than pupils who have experienced poor academic achievement. In these studies, the criterion for level of academic achievement has been overall grade point average. Investigations in which pupils' success in reading has been the criterion for academic achievement have yielded similar results.

Lumpkin compared the self concepts of 25 fifth graders who were good readers with a group of 25 poor readers (reading well below expectancy) matched on the basis of age, intelligence, sex, and home background.[54] The better readers revealed significantly more positive

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[53] E. Dyson, "A Study of Ability Grouping and the Self Concept," Journal of Educational Research, LX (May, 1967), 403-5.

[54] Donavon D. Lumpkin, "The Relationship of Self-Concept to Achievement in Reading," Dissertation Abstracts, XX: 204-5, 1959.

self concepts, demonstrated higher levels of adjustment, and saw themselves as liking reading. The poor readers, conversely, manifested a negative perception of self, a desire to be different from perceived self, and were viewed by teachers as behavior problems in the classroom.

The personality characteristics and attitudes toward achievement of good and poor readers at the fourth- and fifth-grade levels were examined by Zimmerman and Allebrand.[55] The pupils were similar in age, intelligence, sex, and ethnic composition, but the poor readers were reading two or more years below grade level. The good readers were functioning at or above grade level. A summary picture of the contrast between good and poor readers, as revealed by the California Test of Personality, was provided by the experimenters:

> The major difference between the two groups appeared to be more in the area of personal rather than social adjustment, specifically, personal worth, feelings of belongingness, withdrawal tendencies, sense of personal freedom, nervous symptoms, self reliance, and community relations (differences

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[55] Irla Lee Zimmerman and George N. Allebrand, "Personality Characteristics and Attitudes Toward Achievement," Journal of Educational Research, LIX (September, 1965), 28-30.

> significant at the .05 level or better, Chi-square test). Specific items relating to motivation and achievement revealed how typically the poor readers confessed to feelings of hopelessness and discouragement. Culturally realistic goals were seen as forced upon them by an unsympathetic environment, and neither accepted nor internalized [by poor readers].[56]

At the ninth-grade level, Athey reported personality characteristics of poor readers which coincided with the studies conducted with elementary school pupils.[57] When she compared good readers (pupils scoring within the top quartile on the reading subtest of the Stanford Achievement Test) with poor readers (pupils scoring within the bottom quartile), the poor readers were characterized as less independent, less likely to have close peer relationships, and manifesting a pervasive sense of inferiority.

Judging from the evidence presented by studies of self concept and academic achievement, there can be little doubt that there is a persistent relationship between the perceived self and scholastic success. This relationship

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[56] Ibid., 29.

[57] Irene Athey, "Personality Factors and the Development of Successful Readers." In G. B. Schick and M. M. May (eds.) New Frontiers in College-Adult Reading, Yearbook of the National Reading Conference, Volume XV, 1966, 133-9.

however, cannot be clearly identified as to a cause-effect pattern. In this regard, Purkey noted:

> . . . a great deal of caution is needed before one assumes that either the self concept determines scholastic performance, or that scholastic performance shapes the self concept. It may be that the relationship between the two is caused by some factor yet to be determined. The best evidence now available suggests that it is a two-way street, that there is a continuous interaction between the self and academic achievement, and that each directly influences the other.[58]

Surely there is sufficient evidence to warrant concern for children's feelings about themselves as learners and to make every effort to develop educational environments in which opportunities for positive growth of self esteem are numerous.

Indeed, Staines reported that elementary school teachers could positively modify pupil self concepts by simply providing supportive oral comments as children went about their work.[59] And at the secondary level,

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[58] William W. Purkey, Self Concept and School Achievement (Englewood Cliffs, New Jersey: Prentice Hall, Inc., 1970), 23.

[59] J. W. Staines, "Self Picture as a Factor in the Classroom," British Journal of Educational Psychology, XXVIII (June, 1958), 97-111.

Page found that students significantly improved their performance on academic tests when teachers systematically wrote encouraging comments on student papers.[60] Other studies by Carlton and Moore[61] and Ludwig and Maehr[62] support the contention that teachers influence children's self concepts by the types of remarks that they make to their pupils.

At the present time, it is safe to conclude that there is a substantial relationship between self concept and general academic achievement, as well as between self concept and success in reading. Further, there is evidence that teachers are significant, in that their evaluations of children's efforts to learn apparently influence pupil self esteem. Concern for self concept, it would appear, should be a major concern of the teacher in the daily operation of the learning setting.

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[60]Ellis B. Page, "Teacher Comments and Student Performance: A Seventy-Four Classroom Experiment in School Motivation," Journal of Educational Psychology, XLIV (August, 1958), 173-81.

[61]Lessie Carlton and Robert H. Moore, "The Effects of Self-Directive Dramatization on Reading Achievement and Self-Concept of Culturally Disadvantaged Children," Reading Teacher, XX (November, 1966), 125-30.

[62]David J. Ludwig and Martin R. Maehr, "Changes in Self Concept and Stated Behavioral Preferences," Child Development, XXXVIII (June, 1967), 453-67.

SUMMER READING PROGRAMS

A search of the literature for studies concerning summer language arts programs revealed that investigations were limited to remedial reading programs. These studies, with few exceptions, were largely descriptive, with little or no use of statistical procedures or incorporation of control groups. Within these limitations, positive gains in reading usually have been reported, and in some instances, factors which might have contributed to the success of the programs were described.

Table I has been prepared to provide the reader with a brief overview of several of the studies to be reviewed. This table will acquaint the reader with the duration of the programs, the number of participants, and their grade levels. Reference to these studies in this portion of the study will be confined largely to reporting the amount of reading improvement and describing those features of the projects which might be considered major factors in the positive outcomes reported.

A large number of students were involved in the summer program conducted by the New York City

TABLE I

STUDIES OF SUMMER READING PROGRAMS

Source	Duration (weeks)	Grades	Number of Pupils	Postive Gains	Control Groups
Model Programs, New York	8	9-12	1,472	Yes	No
Model Programs, Georgia	8	1-6	290	Yes	No
Com.Skills Centers, Michigan	6	4-9	140	Yes	No
Cramer and Dorsey	6	4-8	106	Yes	No
Corbin	6	2	112	Yes	No
Gomberg	6	K-6	108	No	No
Young	7	1-8	-	Yes	No
Hill	6	4-6	22	Yes	Yes
Aaron et.al.	7	1-3	5,678	Yes	No
Franco	6	7	110	Yes	No

schools.[62] After eight weeks of instruction, 81.9 percent of the students showed growth in their reading skills, with a median increase of nine months' gain. Factors considered to be influential in the success of the program included an intensive diagnostic procedure for each pupil as he entered the program; an extremely detailed teaching handbook regularly used by the teachers; and the opportunity for each pupil to build a personal paperback library at no financial cost to the student.

In another eight-week program operated in Thomasville, Georgia, the average increase reported for reading vocabulary scores was in excess of one year's growth; the average increase in reading comprehension was approximately a half year's growth.[63] Teachers felt small classes (maximum size was 15 pupils), full-time teacher aides, and daily free time for planning were the most valuable assets of the program. Another feature which might have contributed to the success of the program

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[62] Model Programs: Reading. Summer Junior High schools, New York, New York (Washington: Government Printing Office, 1971).

[63] Model Programs: Reading. Summer Remedial and Enrichment Program, Thomasville, Georgia (Washington: Government Printing Office, 1971).

was two of the criteria for selecting pupil participants: no student was reading more than two years below his grade level, and he had scored at least 90 on a standard group intelligence test. Such selection procedures would minimize the presence of pupils experiencing severe disabilities.

In a Detroit six-week program, mean gains of 2.4 months and 2.9 months were reported for word meaning and comprehension, respectively.[64] An interesting feature of this program was an intensive two-week, in-service experience for several teachers who did not regularly teach in the program. Each teacher-trainee worked under the supervision of a regular Communication Skills Center teacher and provided intensive remediation for one student participating in the summer session.

Approximately a year's growth in reading was reported by Cramer and Dorsey for pupils who received three hours of daily individual instruction for five weeks.[65] In this program, the individualized approach

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[64] Evaluation of the Communication Skills Centers Project (Detroit: Detroit Public Schools, Research and Development Department, 1967), ERIC ED 016 020.

[65] Ward Cramer and Suzanne Dorsey, "A Summer Developmental Reading Program for Rural Students," Reading Teacher XXII (May, 1969), 585-90.

for each child, with the concommitant lack of competition among peers, was judged to be the factor largely responsible for the rather dramatic mean increase in reading scores. It should be noted that such an approach implies the presence of teachers with good skills in diagnosing reading needs.

A mean gain of four months was reported by Corbin for second graders who received three hours of daily instruction for six weeks.[66] In this program, the teachers worked in teams composed of two reading specialists and one elementary teacher, with the latter serving as an aide. The specialists spent most of their time diagnosing needs and providing basic skill instruction; the elementary teacher spent the major part of her time listening to individual children read orally and discussing with them the pleasure of reading books. In this program, the composition and function of the teams probably accounted in large measure for the program's success. Provision was made for specialized diagnosis and instruction, in addition to daily attention from a presumably significant adult.

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[66] Don Corbin, "A Successful Summer Reading Program," School and Community, LVIII (April, 1972), 33.

Gomberg did not report significant gains for reading in her study of a six-week day camp program which provided reading instruction to some degree.[67] The outcome of the program suggested an important feature for successful programs: the need for a structured reading program based on diagnostic information and for implementation by reasonably well trained teachers.

Young reported average reading gains of three months for pupils receiving six weeks of instruction.[68] In-service training played an important role in this program. All the teachers attended a three-credit-hour college course in reading diagnosis and correction in the months prior to the program. They continued their in-service training during the summer by attending an hour's training session on a daily basis during the program.

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[67] Adeline Gomberg, "The Lighthouse Day Camp Reading Experiment with Disadvantaged Children," Reading Teacher, XIX (January, 1966), 243-6.

[68] Virgil M. Young, "Summer School for Poor Readers -- a Title I Model Project," Reading Teacher, XXIV (March, 1971), 526-36.

Studies by Hill,[69] Aaron,[70] and Franco[71] also reported positive increases in reading test scores, but the descriptions of the programs did not, in the writer's opinion, pinpoint features which reasonably could be assumed to contribute to the positive outcomes of the programs.

Although the results of some of the programs reviewed might not appear so favorable if reasonably conservative statistical procedures and comparisons with control groups had been applied, there is evidence that short-term programs can result in positive gains in reading. Additionally, a number of factors which probably influenced the positive outcomes of the programs were identified.

A key factor appeared to be adequate diagnosis of pupil needs. Small classes increased opportunities

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[69] Charles H. Hill, "A Summer Reading Program with American Indians," Journal of American Indian Education, IX (May, 1970), 10-14.

[70] Ira Aaron, et. al., "Reading Achievement in a Summer Reading Program," Elementary English Journal, XXIV (December, 1967), 875-82.

[71] E. J. Franco, "Operation Upgrade," Journal of Reading, XVI (November, 1972), 120-3.

for providing individual help, and availability of teacher aides contributed, no doubt, to effective instructional settings. However, identification of pupil needs was the factor which made it possible to effectively utilize the other conditions for facilitating pupil growth in reading.

Another factor which influenced the success of some programs probably was the criteria used to select the student population. For short instructional sequences in reading, pupils classified as corrective cases rather than clinical cases would stand the greater chance of success. Pupils in need of corrective instruction are more likely to have gaps in basic skills which are amenable to improvement over a relatively short period of time. Clinical cases, on the other hand, require intensive diagnostic procedures and specialized instruction. Children with such disabilities are not likely to show appreciable gains in reading over a short instructional period.

The incorporation of in-service training into the daily operation of some summer programs also was a factor likely to produce positive results for both teachers and

pupils. Teachers had the opportunity to apply new understandings and skills in a laboratory-type setting free from many of the pressures of the regular school term. Pupils received the benefit of additional assistance, in many cases applied on a one-to-one basis. The mutual advantages of such a situation could well be reflected in post-test reading scores.

Finally, these programs usually reduced substantially the teacher-pupil ratio commonly maintained in nine-month classroom settings. Aside from the instructional advantages of reduced numbers, small classes offered teachers and aides more opportunities for brief one-to-one encounters with children, which had the potential for building positive feelings in pupils toward helping adults as well as towards reading.

RATIONALE FOR THE STUDY

A review of related literature established the persistent relationship between reading and listening. Further, there were indications that appropriately-structured instruction in listening could positively affect reading skills. Studies also demonstrated a predictable relationship between academic achievement

and level of self concept. This relationship held true for status of reading skill, as well as for general academic success. A survey of reports concerning summer programs related to language arts instruction revealed numerous studies in which reading gains were measured, but there was a lack of investigations where other areas of the language arts were examined.

The present study was designed to be wider in scope than previous investigations of summer programs. In addition to collecting and analyzing data for reading achievement, pupil growth in listening comprehension and self concept were examined. Further, the experimental design utilized in the present study made possible an analysis of achievement and self concept while other relevant variables were controlled.

Unlike earlier studies, the present investigation made provision for control groups and for the reduction of error variance to increase the precision of the study. An examination of program effects was possible while the variance contributed by the concommitant variables of grade, sex and entry level status was controlled. No study of a summer program in which a multifactor experimental design was utilized was located in the literature.

CHAPTER III

DESIGN AND PROCEDURES

The purpose of this study was to determine whether or not differences in mean gains for reading and listening achievement and components of the self concept existed between children who participated in the program and similar children who did not take part in the program. This chapter describes the summer program, the experimental design of the study, the sample, the instruments, and the procedures utilized in gathering the data.

THE PROGRAM

The summer program had several features which distinguished it from the nine-month classroom language arts program. No instructional group exceeded 15 pupils, and the usual grade distinctions were not maintained. Children who had attended grades one, two, three, or four during the previous nine-month school term comprised the Level I instructional groups. Pupils who attended grades five, six, seven, or eight constituted the Level II instructional groups. The two experimental groups in the study were chosen from the total program population.

Thus, the second grade experimental group represented a portion of the Level I pupils, and the fifth grade experimental group was a segment of the Level II pupils.

Each level received two and a half hours of instruction per day, five days a week. Level I groups met during the morning. The teachers were then given an hour and a half break in which to eat lunch and prepare for the afternoon session. Level II groups met during the afternoon hours. All 19 teachers had both a Level I and Level II group. The two groups for each teacher attended the program in the same air-conditioned classroom which had been assigned to the teacher for the duration of the program.

Each teacher participating in the program was selected jointly by the parish director of instruction and the principal of the school where the teacher taught during the regular term. According to the director of instruction and the principals, the teachers were competent instructors; thus, the local definition of competence was accepted for teacher selection. All were experienced elementary school personnel who held at least a bachelor's degree; eight had completed a master's degree. The mean number of years of elementary school teaching experience

for the group was 12 years. Seven of the teachers had two summers of experience with the summer program; four had one summer of prior experience; eight had no previous experience in the program.

The services of a full-time teacher aide were provided for each teacher in the summer program. The aides were selected by the parish director of instruction from the recommendations of the principals or counselors of the four senior high schools in the parish. These aides had at least a "C" average in their high school academic work and could provide, in the opinion of the director of instruction, an adequate speech model for the children participating in the summer program.

The teachers were advised to design their classroom activities for the summer around learning centers. These centers consisted of areas in the classroom in which materials designed for use in a particular area of the language arts were readily available to the students. Typical centers included a reading corner generously supplied with trade books; a listening center supplied with a tape recorder, record player, and headphones; a reading skills development table equipped with reading kits and conventional workbook materials; and a creative

arts area including writing materials, a typewriter, paints, easels, and crayons. To make the establishment of these learning centers feasible within the space of a classroom, the conventional desk and chair furniture was removed before the beginning of the program.

Although formal testing in listening and reading achievement was conducted prior to the program and during the final days of the project, no grade reports were issued to the parents of the children. Further, the daily work of the children frequently was self corrected; and when the teacher evaluated the work, she was instructed to include some positive remark and to avoid the use of letter grades.

During the program, each classroom was visited four times by one of the two observers employed by the school system for the purpose of gathering data concerning the day-to-day operation of the program. During each visit, the observer filled out an observation schedule constructed by the experimenter. (See Appendix B.) The two observers were experienced elementary school teachers from an adjacent parish.

During the first week of the program, the experimenter accompanied the two observers to five different

classrooms where all three individuals filled out the observation schedule. These training sessions enabled the observers to familiarize themselves with the procedures for completing the schedule. During the second week of the program, the observers began their work. The teachers were observed twice during the Level I sessions and twice during the Level II sessions. The data collected by means of classroom observations were not gathered specifically for the purpose of this study, but some of the information contributes to a description of the operation of the program.

The mean percentage of observed classroom activities directed by the teacher, the aide, and the students are shown in Table II. The figures in the table were calculated by determining what percentage of the activities observed during each visit were directed by the teacher, aide, and students, and then averaging these percentages over four visits. The high percentage of pupil-directed activities reflects the independent activity promoted by the use of the centers in the classrooms. Although no classroom ever had more than 15 pupils present, the observers usually found at least half the class involved in individual or pupil-controlled group activities.

TABLE II

MEAN PERCENTAGE OF OBSERVED ACTIVITIES
DIRECTED BY THE TEACHER, AIDE, AND STUDENTS

Director	Mean Percentage (Rounded)
Teacher	22 %
Aide	20 %
Students	58 %
Total	100 %

The mean percentage of teacher-, aide-, and student-directed activities for each classroom are presented in Figure 1. The data demonstrate that in 14 of the 19 classrooms, better than 50 percent of the observed activities were student-directed. Assuming that the observers were recording reasonably typical examples of the day-to-day operation of the program, the data provide evidence for the emphasis upon pupil self direction.

The observed mean percentage of activities devoted to the various areas of the language arts are shown in Table III. The figures were developed by labeling every activity observed during each observation as primarily involving pupils in speaking, listening, reading or writing, and calculating what percentage of the total observed activities were devoted to each of the language arts. Then the percentages were averaged over four observations. The "Other" category included activities such as painting or drawing.

It is evident that reading activities which included independent reading, directed reading, and skill-building sessions were the most frequently observed activities. While the predominance of reading activities is not surprising when the importance of reading instruction

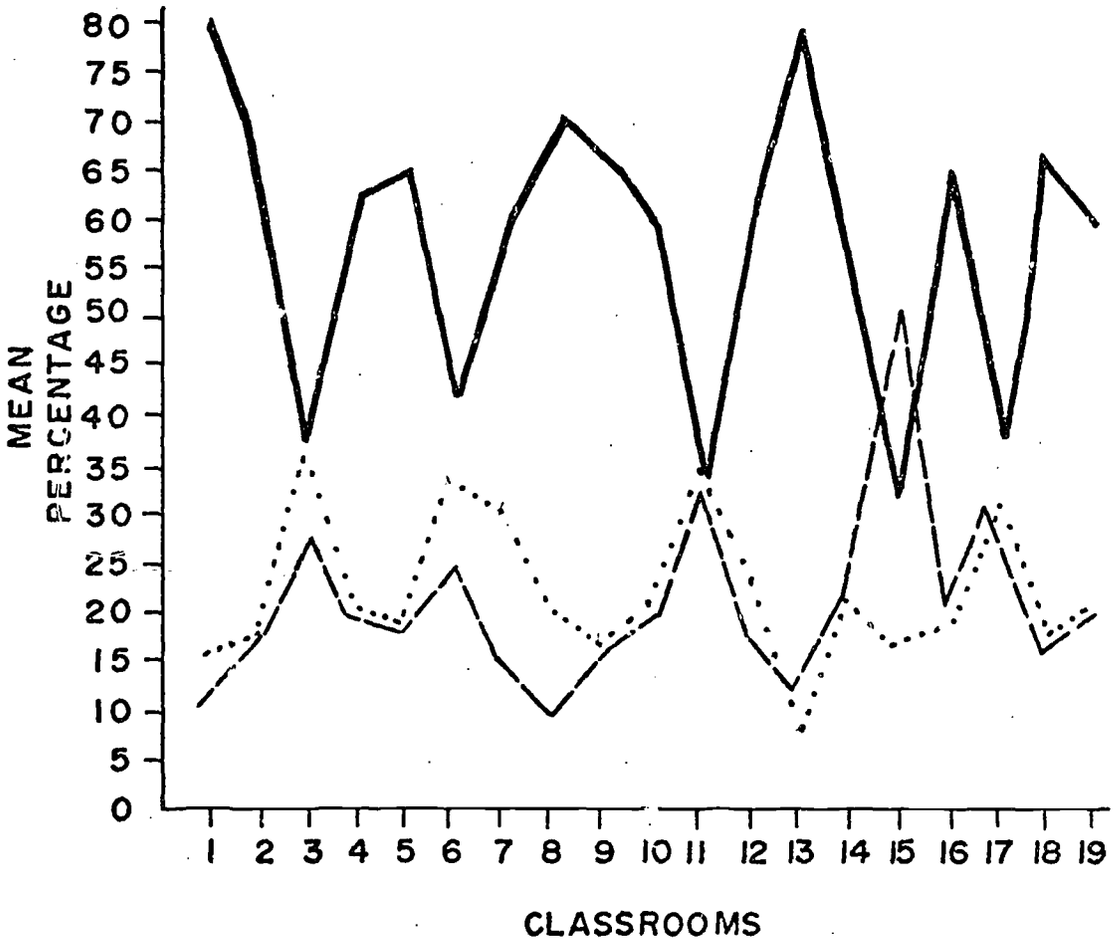

FIGURE 1

OBSERVED MEAN PERCENTAGES BY CLASSROOM OF TEACHER-AIDE-AND STUDENT- DIRECTED ACTIVITIES

TEACHER .....
AIDE — — —
STUDENT ———

TABLE III

MEAN PERCENTAGE OF OBSERVED SPEAKING, LISTENING, READING WRITING, AND OTHER ACTIVITIES

Activity	Mean Percentage
Speaking	4.7 %
Listening	19.5 %
Reading	45.5 %
Writing	13.1 %
Other	17.2 %
Total	100.0 %

to most elementary teachers is considered, greater balance among the various areas of language arts instruction would have been desirable. Since the children in the study were poor readers, it is especially unfortunate that greater emphasis was not placed upon speaking and listening activities, channels of communication which can be extremely useful to children before (as well as after) they achieve adequate reading competence.

It is recognized that the observation schedule utilized to gather information concerning the operation of the program was crude; that the observers had no formal training in the art of observation; and that the presence of the observers in the classrooms may have, in some cases, resulted in a somewhat atypical performance by the instructional staff or children. However, the crudeness of the data, in the opinion of the experimenter, did not prevent it from being a source of information concerning the daily operation of the program. Further, the collected data were useful in developing the more detailed description of the operation of the program provided in Appendix A.

THE DESIGN

The purpose of this study was to determine whether or not positive gains in reading and listening achievement and components of the self concept were evident for the experimental groups after participation in a summer communication skills program. To accomplish this purpose, it was necessary to analyze the data in such a way that differences in achievement gains and/or positive changes in the self concept could be detected between the experimental and control groups after completion of the summer program. Further, more precise assessment of the treatment effect could be obtained if such factors as grade level, sex, history of prior achievement, and status of self concept could be considered in the analysis of the data.

A factorial design for analysis of variance was selected for examination of the data. This design had several advantages:

1. Assessment of the treatment effect could be made while other sources of variance were controlled.

2. Examination of the effects of other independent variables assumed to be related to achievement and/or self concept was possible.

3. Examination of the joint effects between or among the independent variables could be made.

Two factors in addition to the treatment variable were assumed to be important sources of variance: sex and length of exposure to formal education. Thus, the decision was made to classify the gain scores for each pupil according to: (1) treatment group (experimental or control); (2) sex; and (3) grade (second or fifth).

Prior to the final decision concerning classification of the data, one other factor was considered as a possible important source of variance. This was the factor of level of achievement and status of self concept measured for each pupil prior to the beginning of the program. To determine whether or not a pupil's score on a pre-test was significantly related to his score on a corresponding post-test, a series of Pearson product-moment correlations were calculated between pre- and post-test scores for each of the tests utilized in the study. For grade two, these tests included the Gates-MacGinitie Reading Tests - Primary B (Forms 1 and 2); the Cooperative Primary Tests - Listening (Forms 12A and 12B); and the Self Social Symbols Tasks (Primary Form). For grade five, the tests utilized were the Gates-MacGinitie

Reading Tests - Survey D (Forms 1 and 2); the Sequential Tests of Educational Progress - Listening (Forms 4A and 4B); and the Self Social Symbols Tasks (Primary Form).

Correlations and their significance between the pre- and post-tests are presented in Table IV. Substantial correlations were obtained for all groups for reading vocabulary, reading comprehension, and listening comprehension. Four of the six correlations between pre- and post-measures of the self concept were significant for the fifth-grade groups; only one of the six corresponding correlations was significant for the second-grade groups.

The results indicated that entry level achievement scores should be considered in the analysis for all groups. Differences in entry level status of the self concept appeared important at the fifth-grade level, but not at the second-grade level. In order to keep the analysis of the data uniform for all groups, it was decided to further classify the data for each pupil according to his entry level on each test utilized in the study.

To categorize the data according to entry level status, it was arbitrarily decided to designate scores above the mean of a group's performance on a pre-program

TABLE IV

CORRELATIONS OBTAINED BETWEEN PRE- AND POST-PROGRAM MEASURES OF READING, LISTENING, AND SELF CONCEPT FOR EXPERIMENTAL AND CONTROL GROUPS

Measures	Experimental		Control	
	Grade 2	Grade 5	Grade 2	Grade 5
Reading Vocabulary	.58**	.78**	.60**	.50**
Reading Comprehension	.53**	.75**	.48**	.49**
Listening Comprehension	.58**	.65**	.49**	.57**
Self Esteem	.03	.61**	.21*	.36*
Identification (Teacher)	.11	.49**	.20	.31
Identification (Friend)	.22	.26	.18	.36*

*p < .05

**p < .01

test as high scores and to label scores below the mean as low scores. Thus, the design finally employed in the study classified the data according to: (1) treatment (experimental or control); (2) sex; (3) grade (second or fifth); and (4) entry level (high or low).

The final classification of the data resulted in a 2 x 2 x 2 x 2 treatments-by-blocks design. The experimental and control groups comprised the treatment groups, and the factors of sex, grade, and entry level status were considered concommitant variables; that is, factors which could be assumed to affect performance within the treatment groups.[72] A .05 confidence level was set for all F tests generated by the design.

The final categorization of the data is presented in Figure 2. This categorization was used to classify all the gain scores for each area of performance examined in the study. For example, if the performance being analyzed was reading comprehension, a pupil's gain score was placed in the cell representing his status as to treatment group, sex, grade, and whether or not his pre-test score in reading comprehension fell above or

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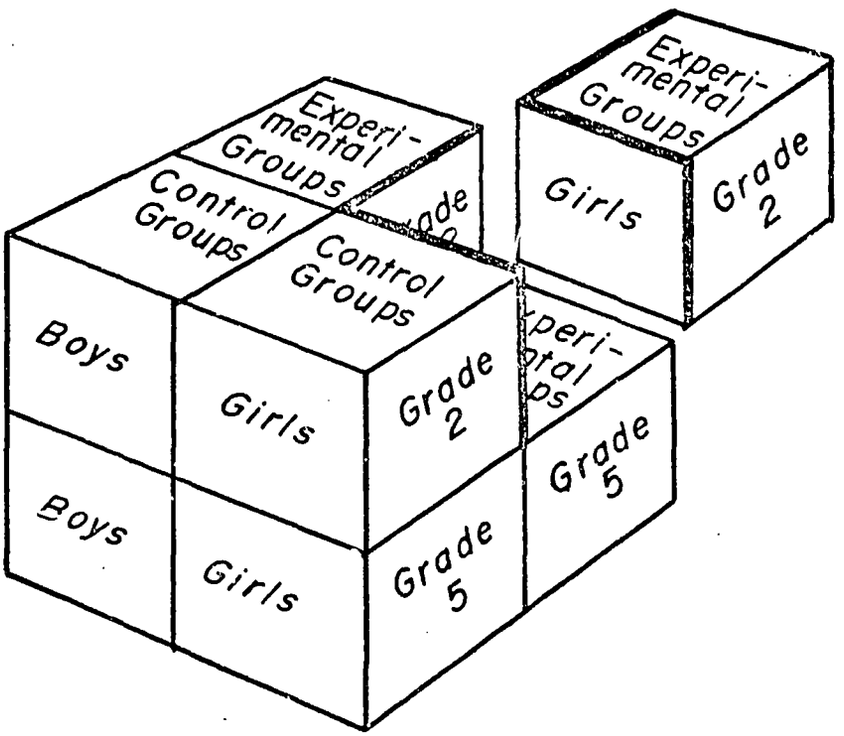
[72] Jerome L. Myers, Fundamentals of Experimental Design (Boston: Allyn and Bacon, 1966), 138-9.

BLOCK I: ENTRY LEVEL SCORES ABOVE THE MEAN



BLOCK II: ENTRY LEVEL SCORES BELOW THE MEAN

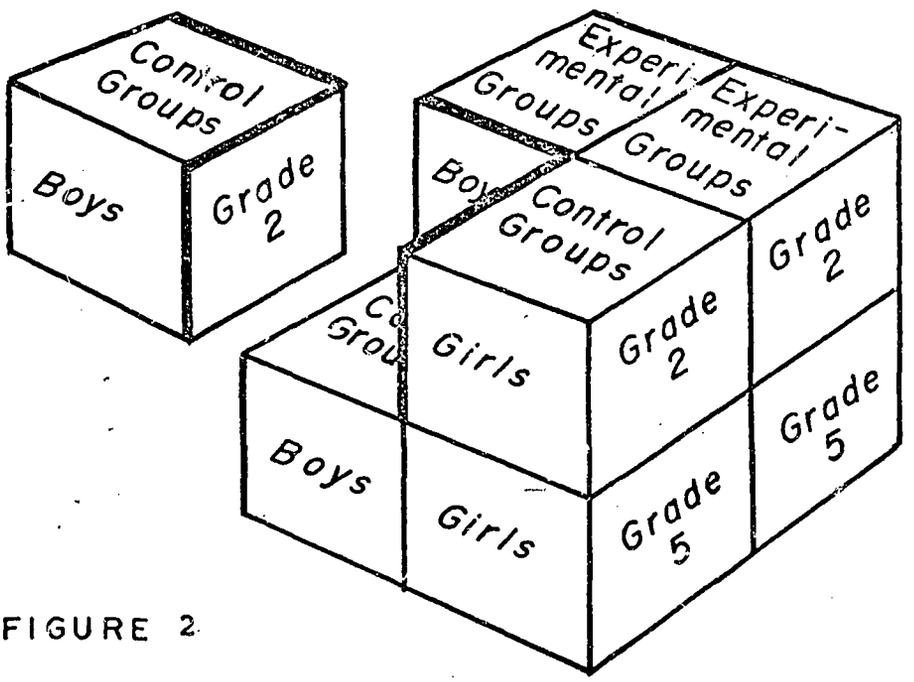


FIGURE 2

CLASSIFICATION OF GAIN SCORE DATA FOR
FOUR-FACTOR TREATMENTS-BY BLOCKS
ANALYSIS OF VARIANCE DESIGN

below the mean comprehension score for his treatment group.

The schema for analysis of variance which corresponds to the layout in Figure 2 is presented in Table V. This model for a four-factor design is an elaboration of the schema for a completely randomized three-way analysis of variance described by Myers.[73] Notations for the estimated mean squares for the data utilized in this study would be slightly different than those shown in Table V, since the number of gain scores in each of the cells shown in Figure 2 was not equal for each cell. This disparity was accounted for by use of the method of unweighted means described by Myers.[74]

The decision to use gain scores instead of raw post-test scores was made because the treatment groups were only roughly matched on achievement status prior to the beginning of the program. A gain score would reflect rate of progress rather than final status. That is, while the post-test scores of two pupils might differ by 20 raw score points, the rate of growth for the two pupils between pre- and post-testing might be similar.

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[73] Ibid., 116.

[74] Ibid., 106-8.

TABLE V SCHEMA FOR ANALYSIS OF VARIANCE

Source Of Variance	*Degrees Of Freedom*	*Expected MS*	*F Ratio*
Treatments	a-1	$\sigma_e^2+ngs\theta_T^2$	$\frac{MS_T}{MS_{S/TGSL}}$
Grades	b-1	$\sigma_e^2+nts\theta_G^2$	$\frac{MS_G}{MS_{S/TGSL}}$
Sexes	c-1	$\sigma_e^2+ntg\theta_S^2$	$\frac{MS_S}{MS_{S/TGSL}}$
Levels	d-1	$\sigma_e^2+ntgs\theta_L^2$	$\frac{MS_L}{MS_{S/TGSL}}$
Treatments by Grades	(a-1)(b-1)	$\sigma_e^2+ns\theta_{TG}^2$	$\frac{MS_{TG}}{MS_{S/TGSL}}$
Treatments by Sexes	(a-1)(c-1)	$\sigma_e^2+ng\theta_{TS}^2$	$\frac{MS_{TS}}{MS_{S/TGSL}}$
Treatments by Levels	(a-1)(d-1)	$\sigma_e^2+ngs\theta_{TL}^2$	$\frac{MS_{TL}}{MS_{S/TGSL}}$
Grades by Sexes	(b-1)(c-1)	$\sigma_e^2+nt\theta_{GS}^2$	$\frac{MS_{GS}}{MS_{S/TGSL}}$
Grades by Levels	(b-1)(d-1)	$\sigma_e^2+nts\theta_{GL}^2$	$\frac{MS_{GL}}{MS_{S/TGSL}}$
Sexes by Levels	(c-1)(d-1)	$\sigma_e^2+ntg\theta_{SL}^2$	$\frac{MS_{SL}}{MS_{S/TGSL}}$
Treatments by Grades by Sexes	(a-1)(b-1)(c-1)	$\sigma_e^2+n\theta_{TGS}^2$	$\frac{MS_{TGS}}{MS_{S/TGSL}}$
Treatments by Grades by Levels	(a-1)(b-1)(d-1)	$\sigma_e^2+ns\theta_{TGL}^2$	$\frac{MS_{TGL}}{MS_{S/TGSL}}$
Grades by Sexes by Levels	(b-1)(c-1)(d-1)	$\sigma_e^2+nt\theta_{GSL}^2$	$\frac{MS_{GSL}}{MS_{S/TGSL}}$
Treatments by Grades by Sexes by Levels	(a-1)(b-1)(c-1)(d-1)	$\sigma_e^2+n\theta_{TGSL}^2$	$\frac{MS_{TGSL}}{MS_{S/TGSL}}$
Subjects/Treatments by Grades by Sexes by Levels	(N-1)—(abcd-1)	σ_e^2	

Furthermore, since the design of the study involved comparisons across grade levels, it was necessary to express second-grade gain scores in a manner compatible with fifth-grade gain scores. In order to accomplish this, all gain scores for reading and listening achievement were transformed into z-scores prior to statistical analysis. Such a transformation was not necessary for self concept data since the same test was used at both grade levels.

An alternative to the use of gain scores would have been a covariance adjustment on the post-test scores. However, as shown in Table IV, most of the correlations between pre- and post-test performance did not exceed .60. As noted by Myers, when such correlations fall at or below .60, a treatments-by-blocks design for analysis of variance may yield more precise results than the use of analysis of covariance.[75]

As a matter of interest, Table VI and VII show the size of the critical ratios obtained between the means of the pre-test performance of the experimental and control groups. With the exception of the difference between the mean self esteem score for the second-grade experimental

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[75] Ibid., 324.

TABLE VI

CRITICAL RATIOS OBTAINED BETWEEN THE MEANS OF THE PRE-PROGRAM TEST PERFORMANCE FOR THE SECOND GRADE EXPERIMENTAL AND CONTROL GROUPS

Measure	Experimental		Control		Critical
	Mean	SD	Mean	SD	Ratio
Reading Vocabulary	14.72	4.51	16.90	6.85	1.68
Reading Comprehension	11.88	4.89	11.90	5.39	.02
Listening Comprehension	25.00	4.97	26.27	5.07	1.13
Self Esteem	30.17	7.58	33.88	8.02	2.12*
Identification (Teacher)	12.92	4.67	10.85	5.34	1.85
Identification (Friends)	12.02	4.45	10.40	5.56	1.43

*p < .05

TABLE VII

CRITICAL RATIOS OBTAINED BETWEEN THE MEANS OF THE PRE-PROGRAM TEST PERFORMANCE FOR THE FIFTH GRADE EXPERIMENTAL AND CONTROL GROUPS

Measure	Experimental		Control		Critical
	Mean	SD	Mean	SD	Ratio
Reading Vocabulary	19.37	6.55	19.83	4.31	.35
Reading Comprehension	17.60	6.55	16.49	5.54	.78
Listening Comprehension	31.00	11.05	32.09	9.38	.44
Self Esteem	30.66	6.76	31.31	7.2?	.39
Identification (Teacher)	11.83	4.34	12.40	4.68	.94
Identification (Friends)	12.29	4.15	10.63	4.72	1.57

and control groups, no ratio reached significance at the .05 level. These results suggest that, on the average, the experimental and control groups performed at about the same level on the pre-program measures. However, the use of gain scores was retained as the unit of analysis since the results shown in Tables VI and VII were post hoc observations.

THE SAMPLE

The sample for the study consisted of 80 second-grade pupils and 70 fifth-grade pupils. All were Negro. Half of the second-grade sample comprised Experimental Group I. Experimental Group II was composed of half of the fifth-grade sample. The remainder of the second- and fifth-grade pupils constituted Control Group I and Control Group II, respectively.

The pupils who made up the sample for the study shared the following characteristics:

1. All pupils attended Title I schools in St. James Parish, Louisiana, during the 1968-69 school year.

2. All pupils attended schools with a totally Negro student population during the 1968-69 school year.

3. None of the pupils participated in the 1967 or 1968 summer communication skills program.

4. No second-grade pupil scored above the thirty-second percentile (national norms) on the total reading score of the Stanford Achievement Tests administered in March, 1969.*

5. No fifth-grade pupil scored above the twenty-fifth percentile (national norms) on the total reading score of the Stanford Achievement Tests administered in March, 1969.*

The selection of students for participation in the 1969 summer communications skills program was made by the teachers who taught the elementary grades in Title I schools during the 1968-69 school year. Since 1969 was the third year of operation for the summer program, the teachers were familiar with the guidelines for pupil selection developed by the director of instruction for the parish schools. These guidelines directed the faculty to select those pupils who, in the opinion of the classroom teacher, (1) were of normal intelligence; (2) were

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*The experimenter established the cutoff points for the second- and fifth-grade percentiles. See pages 86-87.

considered underachievers in the language arts; and (3) had received written permission from their parents or guardians to participate in the program.

The selected pupils attended the program in the center operating in proximity to the pupil's home address. Except for the experimental groups of second and fifth graders, the assignment of pupils to classrooms within the centers was not controlled by the experimenter.

In order to identify the experimental groups of second and fifth graders, the lists of pupils selected by their teachers for participation in the 1969 summer program were examined to determine the grade level of pupils who had no prior experience in the program. This examination indicated that it would be feasible to obtain experimental samples of second- and fifth-grade pupils. These samples would represent, respectively, a segment of the Level I and Level II groups formed for the summer program.

The percentile ranks of the total reading scores achieved by these pupils on the Stanford Achievement Tests administered in March, 1969, were then examined. This analysis indicated that few of the second-grade pupils had achieved above the thirty-second percentile and only three of the fifth graders had achieved above

the twenty-fifth percentile. The second-grade students scoring above the thirty-second percentile and the fifth-grade students scoring above the twenty-fifth percentile were eliminated from the samples. After these eliminations, 40 second graders and 35 fifth graders remained to comprise the two experimental groups.

The control group for the second-grade experimental pupils was established by random selection of 40 second-grade pupils who: (1) attended any one of the six all-Negro Tit e I schools in the parish during the 1968-69 school year; (2) had no experience in the summer program; (3) scored at or below the thirty-second percentile on the total reading score of the Stanford Achievement Tests administered in March, 1960; and (4) would have no formal school experiences during the summer of 1969.

The control group for the fifth-grade experimental pupils was established by random selection of 35 fifth-grade students who: (1) attended any one of the six all-Negro Title I schools in the parish during the 1968-69 school year; (2) had no experience in the summer program; (3) scored at or below the twenty-fifth percentile on the total reading score of the Stanford Achievement Tests administered in March, 1969; and (4) would have

no formal school experiences during the summer of 1969.

Members of the experimental groups attended the summer program in the center closest to their home residence. Each pupil in the experimental group was assigned randomly to a classroom within the center he attended. The teachers did not know which pupils had been identified as part of the sample. The distribution of the sample by centers is shown in Table VIII. In the case of the control groups, the table indicates the distribution of pupils according to where they attended classes during the regular 1968-69 school term.

Description of the Parish

St. James Parish is a county located on either side of the Mississippi River approximately 40 miles northwest of New Orleans. During the last decade, 82.2 percent of the county population was rural.[76] Racially, the county was approximately 50.7 percent white and 49.3 percent nonwhite.[77] As of 1966, the total population for the county was approximately 20,000.[78]

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[76] St. James Population and Economy (New Orleans: Planning Services, Inc., April, 1968), 52.

[77] Ibid., 46.

[78] Ibid., 38.

TABLE VIII

DISTRIBUTION BY CENTER AND GRADE LEVEL
OF PUPILS PARTICIPATING IN THE STUDY OF THE
ST. JAMES PARISH, LOUISIANA,
SUMMER COMMUNICATION SKILLS PROGRAM

Center	Experimental Groups		Control Groups	
	Grade 2	Grade 5	Grade 2	Grade 5
A	2	3	2	4
B	10	14	6	16
C	7	1	6	1
D	5	7	12	6
E	9	7	11	6
F	7	3	3	2
TOTAL	40	35	40	35

Until the 1960's, the economy of the parish was largely agricultural, with sugar cane, rice, and tobacco representing the major crops of the area. At the beginning of the 1960's, the economy of the area was altered by the introduction of the petrochemical industry. This industry capitalized on the parish's "natural assets of the Mississippi River and proximity to the oil and gas deposits of the deltaic plain."[79]

According to a recent study of the St. James economy, the area is on the brink of a change in economic patterns:

> The economy of St. James was formerly, and still for a great part is, agricultural. However, the advantages of the parish's natural resources of oil and gas, and transportation on the Mississippi are beginning to shift the economy of St. James to that of an industrial nature. This can be seen with the birth of the petrochemical industries in the area. St. James Parish will develop into an area of striding economic activity with an industrial economic base.[80]

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[79] Ibid., 2.

[80] Ibid., 59.

INSTRUMENTS

Two forms of each of four standardized achievement tests were employed in the study. The reading achievement tests were the Gates-MacGinitie Reading Tests - Primary B (Forms 1 and 2) and the Gates-MacGinitie Reading Tests - Survey D (Forms 1 and 2).

The Gates-MacGinitie Reading Tests - Primary B (Forms 1 and 2) are intended for use in the second grade. Each of the alternate forms consists of two parts: Vocabulary and Comprehension. The Vocabulary Test

> . . . samples the child's ability to recognize or analyze isolated words. It consists of 48 exercises, each of which contains four printed words and a picture illustrating the meaning of one of the words. The child's task is to circle the word that best corresponds to the picture. The first exercises are composed of easy and commonly used words, grouped with words selected to be only slightly similar or confusing. Gradually the words become less easy and common, and are presented with words more similar as to details and general appearance.
>
> The Comprehension Test measures the child's ability to read and understand whole sentences and paragraphs. This ability includes many skills not involved in the mere ability to recognize words. The child must grasp the total thought clearly if he

> is to answer correctly. The test contains 34 passages of increasing length and difficulty. Each passage is accompanied by a panel of four pictures. The child's task is to mark the picture that best illustrates the meaning of the passage or that answers the question in the passage.[81]

Each form of the test yields a score for Vocabulary and a score for Comprehension. Alternate form reliability coefficients reported for the tests were .87 (Vocabulary) and .81 (Comprehension).[82] Split-half reliability coefficients were .93 for both Vocabulary and Comprehension.[83]

The Gates-MacGinitie Reading Tests - Survey D (Forms 1 and 2) are intended for use in grades four through six. Each of the alternate forms consists of three parts: Speed and Accuracy, Vocabulary, and Comprehension. The Speed and Accuracy subtest has less reliability than the other two components. Further, a power

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[81] Arthur I. Gates and Walter H. MacGinitie, Teacher's Manual for Gates-MacGinitie Reading Tests - Primary B (Forms 1 and 2) (New York: Teachers College Press, 1965), 1.

[82] Arthur I. Gates and Walter H. MacGinitie, Technical Manual for Gates-MacGinitie Reading Tests (New York: Teachers College Press, 1965), 8.

[83] Ibid.

rather than a speed test of reading ability was considered more appropriate for the population under study. For these reasons, only the Vocabulary and Comprehension measures were used in this study. The Vocabulary Test

> . . . samples the student's reading vocabulary. This test contains 50 items, each consisting of a test word followed by five other words, one of which is similar in meaning to the test word. The student's task is to choose the word that means most nearly the same as the test word. The first items are composed of easy and commonly used words. Gradually the words become less common and more difficult.
>
> The Comprehension Test measures the student's ability to read complete prose passages with understanding. It contains 21 passages in which a total of 52 blank spaces have been introduced. For each blank space, a choice of five completions is offered. The student must decide which one of the five completions best conforms to the meaning of the whole passage. The first passages are simply written, but the later ones become progressively more difficult.[84]

Each form of the test yields three scores: Speed and Accuracy, Vocabulary, and Comprehension. Reported

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[84]Arthur I. Gates and Walter H. MacGinitie, Teacher's Manual for Gates-MacGinitie Reading Tests - Survey D (Forms 1, 2, and 3) (New York: Teachers College Press, 1965), 1.

alternate form reliability coefficients were .76 (Speed and Accuracy), .87 (Vocabulary), and .89 (Comprehension).[85]

The listening comprehension tests employed in the study were the Cooperative Primary Tests - Listening (Forms 12A and 12B) and the Sequential Tests of Educational Progress - Listening (Forms 4A and 4B).

The Cooperative Primary Tests - Listening (Forms 12A and 12B) are intended for use in the later months of the first grade and in the second grade. Each form of the test consists of 50 items. The examiner reads aloud a word, sentence or paragraph. The child responds to the orally-presented question concerning the word, sentence, or paragraph by marking one of three pictures. The test purports to measure the child's ability to recall, literally comprehend, and interpret verbal material presented orally. The test yields a single total score.

Alternate form reliability coefficients were reported in the Handbook for the Cooperative Primary Tests according to the order in which the forms of the test were administered. For the 12A-12B order, with 266

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[85]Gates and MacGinitie, Technical Manual, 8.

second graders, the coefficient was .82. A coefficient of .75 was reported for the 12B-12A order of administration on a different sample of 241 second graders.[86]

The Sequential Tests of Educational Progress - Listening (Forms 4A and 4B) are intended for use in grades four through six. Each form of the test consists of 80 items. The examiner reads aloud a passage and then asks a series of questions about the passage. The pupil's test booklet contains a set of four printed answers for each question. These choices are also read aloud to the pupils. The pupil records his choice on a separate answer sheet. The tests purport to measure the child's ability in "understanding, interpreting, applying and evaluating what he listens to."[87]

The selections include materials of each of the following types: (1) directions and simple explanation; (2) exposition; (3) narration; (4) argument and persuasion; and (5) aesthetic material (both in prose and poetry).

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[86] Handbook for the Cooperative Primary Tests (Princeton, New Jersey: Educational Testing Service, 1967), 48.

[87] STEP Manual for Interpreting Scores - Listening (Princeton, New Jersey: Educational Testing Service, 1967), 9.

The reliability estimate for the STEP listening test (Form 4A) reported in the technical manual was .93.[88] This estimate was based on internal analyses of a single administration of the test to a random sample of 100 fifth graders drawn from the 1,520 fifth graders participating in the fall 1956 norming procedures. No information on the reliability of Form B was reported. Equivalence of Forms 4A and 4B was suggested by the similarity of standard scores converted from selected raw scores from the two forms.[89]

In addition to measuring the effects of the summer communication skills program upon the listening and reading achievement of Negro children, the objectives of the study included an investigation of the effects of the program upon components of the pupils' self concept.

Since the subjects of the study were handicapped in their reading skill, it was considered appropriate to locate a test instrument that did not require reading ability. Further, it was hoped that such an instrument could be administered to children in groups, rather than individually.

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[88] Ibid., 10.

[89] Ibid., 12.

The Self Social Symbols Tasks (Primary Form) instrument developed by Long, Henderson and Ziller has both of the above characteristics.[90,91] Moreover, unlike many self concept measures, the SSST provides a measure of different components of the self concept instead of a single, global index. Wylie, who summarized and criticized a wide assortment of self concept measures, suggested that procedures which utilized a molecular rather than a molar approach to self concept assessment might have greater utility.[92] The SSST follows this suggestion.

The SSST requires the pupil to manipulate non-verbal symbols (circles, squares, and other geometric patterns) in response to the examiner's directions. The symbols are presented to the pupil in a test booklet and he uses a pencil to indicate his response to the examiner's directions. There is no time limit on the

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[90] Barbara H. Long, Edmund H. Henderson, and Robert C. Ziller, Self Social Symbols Tasks (Primary Form) (Newark: University of Delaware, 1967). (Mimeographed)

[91] Hereafter referred to as the SSST.

[92] Ruth C. Wylie, The Self Concept (Lincoln: University of Nebraska Press, 1961).

test, but administration usually does not exceed 20 minutes. A separate score is derived for each of the dimensions of the self concept by totalling the numerical scores of each group of items purporting to measure one aspect of the self concept.

A brief definition of each dimension measured and a description of the relevant test items is presented below.

Self-esteem

Self-esteem is defined as an individual's perception of his worth derived from a lifelong series of comparisons of oneself with other individuals important to oneself.[93] Two types of tasks are used to measure self-esteem. The Vertical Esteem tasks consist of a column of six circles which represent himself, with higher self-esteem associated with a higher position. In the Horizontal Esteem tasks, a row of six circles represents children. The subject selects one to represent himself, with higher esteem associated with positions to the left.

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[93] Barbara H. Long, Edmund H. Henderson, and Robert C. Ziller, Manual for the Self Social Symbols Method (Newark: University of Delaware, undated), 11. (Mimeographed)

Identification

Identification is defined as the individual's acceptance of another person as a model for the development of values, attitudes, appearance, and so on.[94] In school-age children, it is assumed that teachers and peers, as well as parents, are sources of identification for the child. In the SSST, separate tasks are presented for identification with teachers or friends. Each of these tasks consists of a row of circles, with the circle at the extreme left representing the particular other person (designated by a letter). The subject selects one of the other circles to represent himself. Closer placement with the particular other person is assumed to represent greater identification.

The SSST includes measures of other components of the self concept. However, the components described above were considered most appropriate for the population in this study. The data collected were limited to these aspects of the self concept.

As a recently-devised instrument for research purposes, the data on the validity and reliability of the

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[94] Ibid., 14.

SSST did not parallel such data available on many published measures of scholastic achievement. An example of the relative imprecision of the instrument is suggested by the data in Table IX, which presents the split-half reliability coefficients reported for 100 third graders.[95] These values are not optimal, but Thorndike noted that in areas of measurement where high levels of reliability have not been established, a researcher finds it necessary to utilize instruments which do not meet a statistician's ideal of consistency.[96] In such cases, the prudent course of action is to identify any judgments based on such data as clearly tentative in nature.

DATA COLLECTION

By the beginning of April, 1969, the experimental and control groups had been identified by the experimenter. At this time, planning for administration of all pre-tests was instituted.

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[95] Ibid., 67-78.

[96] Robert L. Thorndike, "Reliability." In E. F. Lindquist (ed.), Educational Measurement (Washington, D.C.: American Council on Education, 1951), 609-10.

TABLE IX

SPLIT-HALF RELIABILITY COEFFICIENTS OBTAINED FOR ONE HUNDRED THIRD GRADERS ON THE SELF SOCIAL SYMBOL TASKS TEST

Subtest	Coefficient
Self Esteem	.53
Identification (Teacher)	.63
Identification (Friends)	.63

On April 29, 1969 and May 6, 1969, the experimenter conducted three-hour training sessions with the teachers who were selected to participate in the summer communication skills program. The purpose of these meetings was to prepare the teachers for the administration of the tests employed in the study. One of the guidance counselors in the system and the director of instruction assisted the experimenter during these sessions.

Each teacher administered one or more of the tests to the children selected as experimental or control group members who were attending school where the teacher held his regular nine-month teaching assignment. All pre-testing was conducted during May 19-29, 1969, before the regular school term ended. Post-testing of both experimental groups was conducted during the week of July 23, 1970. The post-tests were administered by the same teachers who had administered the pre-tests.

The two control groups were post-tested during the week of September 8-12, 1969. It was necessary to delay post-testing of the control groups until the opening of the 1969-70 school term, since location of the pupils for testing during the summer vacation period was

not feasible. Administration of the post-tests to the control groups was carried out by the experimenter and three guidance counselors and an elementary supervisor employed by the St. James Parish Schools.

Ideally, of course, post-testing for both the experimental and control groups should have occurred at the same time. The delay in testing the control groups might raise a question concerning the possible regression over the summer months of language arts skills. If such regressions occurred, comparisons between the experimental and control groups might be invalid. However, evidence provided by Mousley, who studied the reading levels of third graders after the summer vacation, indicated that assumptions concerning summer regressions were not supported by the test data:

> The results of this experiment suggest that the call for year-round school to avoid loss in children's academic skills is an argument not supported by fact, at least in reading. The children in this study did not suffer a loss in reading ability despite the lapse of 85 vacation days.[97]

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[97] Woodrow Mousley, "Testing the Summer Learning Loss Argument," Phi Delta Kappan, LIV (June, 1973), 10.

The post-test measures were a repetition of the pre-test measures, except that different forms of each test (with the exception of the Self Social Symbols Tasks) were utilized.

Although the testing described here was conducted primarily for the purposes of this study, the results of all pre-testing were available to the teachers. However, the teachers did not know which pupils in the centers had been identified as members of the experimental groups.

All pre- and post-tests were scored or checked by the experimenter or two college students employed for the purpose of checking the results of each test booklet. Statistical analysis of the data was accomplished by use of the facilities of the Data Processing Center at the University of West Florida, Pensacola.

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

The concern of this study was the effects of a summer communication skills program upon selected language arts skills and the self concept of disadvantaged Negro students. Specifically, the purpose was to examine possible program effects upon reading vocabulary and comprehension skills, listening skills, and three components of self concept: self esteem, identification with teachers, and identification with friends. In order to examine mean gain scores of experimental and control groups, an experimental design was needed which would measure the treatment effects with relatively good precision.

The design utilized was a four-factor, treatments-by-blocks analysis of variance. The experimental and control groups comprised the treatment groups; and grade, sex, and entry level status served as concommitant variables. The design had certain features which increased the precision of the analysis of the data. Most importantly, the treatment effect could be examined while other sources of variance were controlled. In

addition, the effects of grade, sex, and entry level status upon mean gain scores could be independently examined. Finally, examination of the joint effects (interactions) between or among treatments, grade, sex, and entry level status was made possible.

Since the design frequently resulted in comparisons among more than two means, a procedure had to be utilized which permitted identification of those means which were significantly different from each other. For example, if the analysis of variance yielded a significant F ratio for a treatments-by-grade interaction, four means would be involved. In some cases, all four means might be significantly different from each other, but frequently only some of the means would be significantly different. Duncan made the following observations about this problem:

> The common practice for testing the homogeneity of a set of n treatment means in an analysis of variance is to use an F (or z) test. The procedure has special desirable properties for testing the homogeneity hypothesis that the n population means concerned are equal. An F test alone, however, generally falls short of satisfying all of the practical requirements involved. When it rejects the homogeneity hypothesis, it gives no decisions as to which of

> the differences among the treatment means may be considered significant and which may not.[98]

The Newman-Keuls procedure, a modified q statistic, is a particularly useful method for probing the nature of the differences between means following a significant overall F.[99] In this study, frequent use of this procedure was made.

RESULTS AND DISCUSSION

Hypothesis I

No significant difference exists between the experimental and control groups in mean gain scores of: (1) reading vocabulary; (2) reading comprehension; and (3) listening comprehension. The hypothesis was supported. The F ratio for the treatment main effects shown in Tables X, XI and XII were not significant for reading vocabulary, reading comprehension, or listening comprehension.

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[98] David B. Duncan, "Multiple Range and Multiple F Tests," Biometrics, XI, No. 1, 1955, 1.

[99] A description and critical analysis of the Newman-Keuls method is provided in B. J. Winer, Statistical Principles in Experimental Design (New York: McGraw Hill Book Company, 1962), 77-85.

TABLE X

ANALYSIS OF VARIANCE FOR READING VOCABULARY

Source of Variance	Degrees of Freedom	Sums of Squares	Means Squares	F Ratio
Treatments	1	.051	.501	.537
Grades	1	.002	.002	.021
Sexes	1	.293	.293	3.084
Levels	1	1.934	1.934	20.358*****
Treatment by Grades	1	.000	.000	.000
Treatment by Sexes	1	.026	.026	.274
Treatment by Levels	1	.011	.011	.116
Grades by Sexes	1	.741	.741	7.800***
Grades by Levels	1	.396	.396	4.168*
Sexes by Levels	1	.004	.004	.042
Treatments by Grades by Sexes	1	.166	.166	1.747
Treatments by Grades by Levels	1	.502	.502	5.284
Grades by Sexes by Levels	1	.041	.041	.432
Treatments by Grades by Sexes by Levels	1	.099	.099	1.042
Subjects/Treatments by Grades by Sexes by Levels	134	12.750	.095	

*****p < .001
***p < .01
**p < .025
*p < .05

TABLE XI

ANALYSIS OF VARIANCE FOR READING COMPREHENSION

Source of Variance	Degrees of Freedom	Sums of Squares	Means Squares	F Ratio
Treatments	1	.000	.000	.000
Grades	1	.026	.026	.230
Sexes	1	.421	.421	3.726
Levels	1	1.085	1.085	9.602****
Treatments by Grades	1	.002	.002	.018
Treatments by Sexes	1	.007	.007	.062
Treatments by Levels	1	.488	.488	4.319*
Grades by Sexes	1	.001	.001	.009
Grades by Levels	1	.308	.308	2.726
Sexes by Levels	1	.215	.215	1.903
Treatments by Grades by Sexes	1	.276	.276	2.442
Treatments by Grades by Levels	1	.001	.001	.009
Grades by Sexes by Levels	1	.148	.148	1.310
Treatments by Grades By Sexes by Levels	1	.013	.013	.115
Subjects/Treatments by Grades by Sexes by Levels	134	15.156	.113	

****p < .005
*p < .05

TABLE XII

ANALYSIS OF VARIANCE FOR LISTENING COMPREHENSION

Source of Variance	Degrees of Freedom	Sums of Squares	Means Squares	F Ratio
Treatments	1	.040	.040	.393
Grades	1	.001	.001	.010
Sexes	1	.409	.409	4.010*
Levels	1	1.801	1.801	17.658*****
Treatments by Grades	1	.013	.013	.127
Treatments by Sexes	1	.015	.015	.148
Treatments by Levels	1	.061	.061	.598
Grades by Sexes	1	.003	.003	.029
Grades by Levels	1	.261	.261	2.559
Sexes by Levels	1	.018	.018	.176
Treatments by Grades by Sexes	1	.019	.019	.186
Treatments by Grades by Levels	1	.000	.000	.000
Grades by Sexes by Levels	1	.281	.281	2.755
Treatments by Grades by Sexes by Levels	1	.503	.503	4.931*
Subjects/Treatments by Grades by Sexes by Levels	134	13.718	.102	

****p < .001
*p < .05

In Chapter II, knowledge of specific pupil needs was identified as a key factor in several programs reporting substantial gains in reading. Especially for programs of short duration, it would seem critical that specific objectives in reading and listening skills be identified to guide instructional sequences. In the summer program under investigation, the pre-tests were survey in nature; that is, they did not provide the teacher with specific kinds of diagnostic information about each child. Such information, of course, could have been gathered by any of the teachers who were familiar with informal diagnostic procedures during the first few days of the program. The point to be emphasized here is that there was no procedure for insuring that such data was collected systematically in every classroom. Failure to gather such information would be likely to reduce the effectiveness of the program in promoting gains in achievement.

Moreover, studies of the effect of listening instruction upon increments in reading have demonstrated that reading and listening gains appear to depend upon two conditions: instruction focused upon specific skills; and a close reading-listening correspondence between the specified skills. In other words, each listening skill

should have a reading counterpart and vice versa. Here again, knowledge of the specific needs of pupils would have made planning a close correspondence between listening and reading activities more feasible for both individual pupils and for small groups.

An on-going, in-service component might have been of assistance to teachers in helping them to quickly identify specific pupil needs and thus provide more focused skill-training in both reading and listening. It is possible that the results of an effective in-service component would have been reflected in greater gains by the experimental groups.

Another factor which might have accounted, in part, for the lack of significant gains in reading -- and possibly in listening -- was the selection procedure used to identify the pupils for participation in the program. Criteria for pupil selection did not include any procedure for distinguishing between children in need of corrective instruction, as distinguished from students in need of clinical types of assistance. It is conceivable that the children in the program included a disproportionately large number of children who were severely disabled readers, and thus unlikely to make

appreciable achievement gains during a brief instructional period.

Another factor which might have influenced achievement gains was one of the criteria used to identify the sample for the study. It will be recalled that none of the second graders had scored above the thirty-second percentile on the reading portion of the Stanford Achievement Test administered two months prior to the program. None of the fifth-grade sample had scored above the twenty-fifth percentile on the same test. Perhaps the sample population should not have been so restricted. A wider range of achievement in the sample would have increased the chance of there being a greater number of less seriously disabled readers who might have responded more effectively in the brief time span of the program.

It should also be kept in mind that the relative precision of the statistical design utilized in the present study may have produced results less favorable than those reported for several of the summer programs reviewed in Chapter II. None of the reviewed studies involved designs which made it possible to account for sources of variance such as age or sex. Inclusion of such

variances in the statistical design of the studies might have produced fewer significant gains in reading.

Finally, no techniques were utilized to account for differences in teachers and classrooms. Such factors have been demonstrated to be of crucial importance in the outcome of instructional programs.[100] The measured outcomes of even a brief, six-week program would undoubtedly be influenced if the teacher variable had been accounted for in some way. In this respect, evaluating the teachers' ability to diagnose reading problems prior to their selection for participation in the summer program would have been useful.

Sex Differences. The only significant sex difference was for listening comprehension, as can be seen by inspection of Table XII. The mean gain for girls was significantly greater than the mean gain for boys. There is substantial evidence that, at the elementary school level, girls tend to be higher achievers than boys in the language arts,

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[100] Guy L. Bond and Robert Dykstra, "The Cooperative Research Program in First Grade Reading Instruction," Reading Research Quarterly, II (Summer, 1967), 123.

especially in reading.[101] The lack of sex differences in the present study might be accounted for by the nature of the sample population. Is it possible that sex differences, which are readily apparent when a wide range of achievement skills are measured, do not manifest themselves when the achievement of both sexes is seriously depressed?

Entry level differences. Inspection of Tables X, XI, and XII reveals that there were consistent and significantly different mean gains on the entry level variable. Pupils who scored below the pre-test mean for reading vocabulary, reading comprehension, or listening comprehension made greater mean gains than pupils who scored above the mean on the pre-test measures.

This result is difficult to interpret. If the unit of measurement for assessing gain had been grade-equivalent scores, it could be argued that small raw score gains by pupils who were well below the mean on a pre-test would result in relatively larger increments in

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[101] Arthur I. Gates, "Sex Differences in Reading." In Alfred R. Binter, John J. Dlabal and Leonard Kise, Readings on Reading (Scranton, Pennsylvania: International Textbook Company, 1969), 199-202.

grade-equivalent scores when their increases on the post-test were compared with those of students who had scored near the mean. However, in this study, gain scores were analyzed. A student's position relative to the mean for his group on the pre-test did not result in a differential effect for his gain score. That is, if a student who scored below the mean gained ten points on the post-test, his gain score would be equal to the gain score of a student who was above the mean on the pre-test and who also increased his post-test score by ten points. It is, however, possible that use of a gain score influenced the consistent finding in this study that the lower achieving children made significantly greater gains than the higher achieving children.

Maginnis[102] measured the extent of reading disability of 20 students receiving clinical instruction by use of the Bond and Tinker[103] formula for reading expectancy. He then correlated the extent of disability with

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[102] George H. Maginnis, "Reading Disability and Remedial Gain," Journal of Learning Disabilities, IV (June - July, 1971), 322-4.

[103] Guy L. Bond and Miles Tinker, Reading Difficulties: Their Diagnosis and Correction, 2nd ed. (New York: Meredith Publishing Company, 1967).

five different methods of determing gains made during remediation, including the post-test minus pre-test method used in the present study. His findings indicated that different methods of computing gain showed different results as to which students gained the most from the remedial program. Perhaps the method of determining gain in this study was somehow biased in favor of the lower achieving students when the gap between reading expectancy and actual reading achievement is taken into consideration.

Hypothesis II.

No significant interactions exist between or among the factors of treatment group, grade, sex, or entry level status for mean gain scores of: (1) reading vocabulary; (2) reading comprehension; or (3) listening comprehension. The hypothesis was rejected. Examination of Tables X, XI, and XII reveals that there were several significant interactions.

Figure 3 illustrates the significant grade-by-sex interaction for reading vocabulary. Application of the Newman-Keuls method to examine the nature of the overall significant F ratio revealed that the mean gain

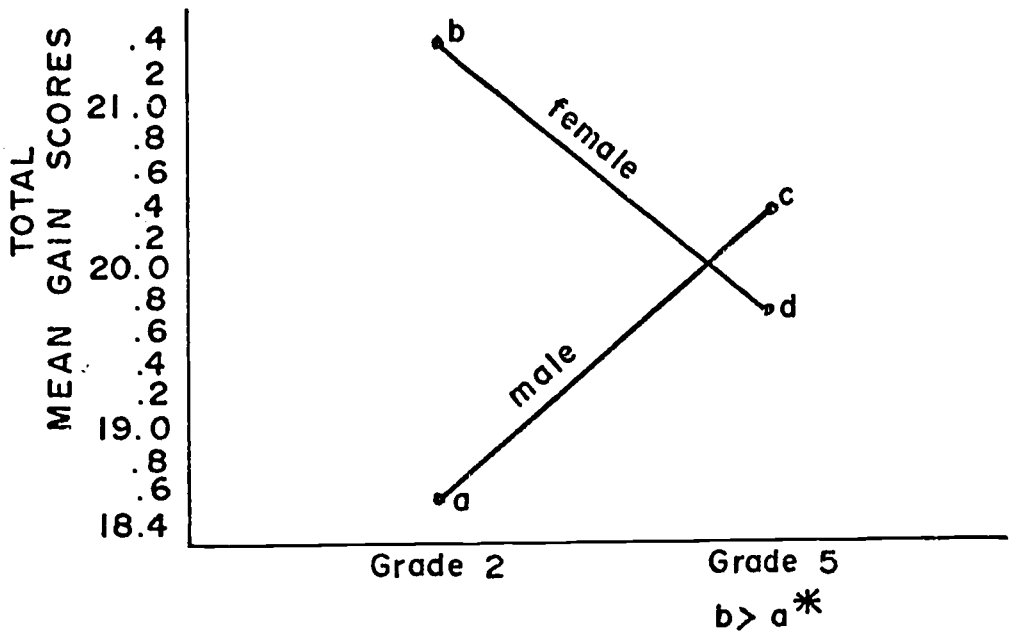

FIGURE 3

GRADE-BY-SEX INTERACTION
FOR READING VOCABULARY

*p < .05

for second-grade girls was significantly higher than the mean gain for second-grade boys. A summary of the Newman-Keuls calculations is provided in Table XIII.

This grade-by-sex interaction supports the tendency for girls to outstrip boys in early reading achievement. This effect cannot be attributed solely to instruction (there was no main effect for treatments) or solely to sex (there was no main effect for sex). Rather, the interaction demonstrates the joint influence of sex and age which favors girls over boys in early reading achievement. This advantage tends to diminish as pupils progress through the grades. The loss of the girls' advantage is reflected by the lack of significant differences at the fifth-grade level.

Figure 4 illustrates the significant grade-by-entry level effect for reading vocabulary. Use of the Newman-Keuls procedure (see Table XIV) revealed that the mean gains for the second- and fifth-grade low entry pupils were significantly greater than the mean gain for the high entry level fifth graders. The mean gain for the low entry level fifth graders was also significantly greater than the gain for the high entry level second graders.

TABLE XIII

TESTS ON ALL ORDERED PAIRS OF MEANS
FOR THE GRADE-BY-SEX INTERACTION
FOR READING VOCABULARY

Order		1	2	3	4
Treatments in order of Tj		a	d	c	b
Tj		18.64	19.65	20.29	21.45
		a	d	c	b
	a	0.00	1.01	1.65	2.81*
	d		0.00	0.64	1.80
	c			0.00	0.00

Truncated range r	2	3	4
$q_{.95}(r,134)$	2.80	3.36	3.69
$q\sqrt{nMS_{error}}$	1.74	2.08	2.29

*p < .05

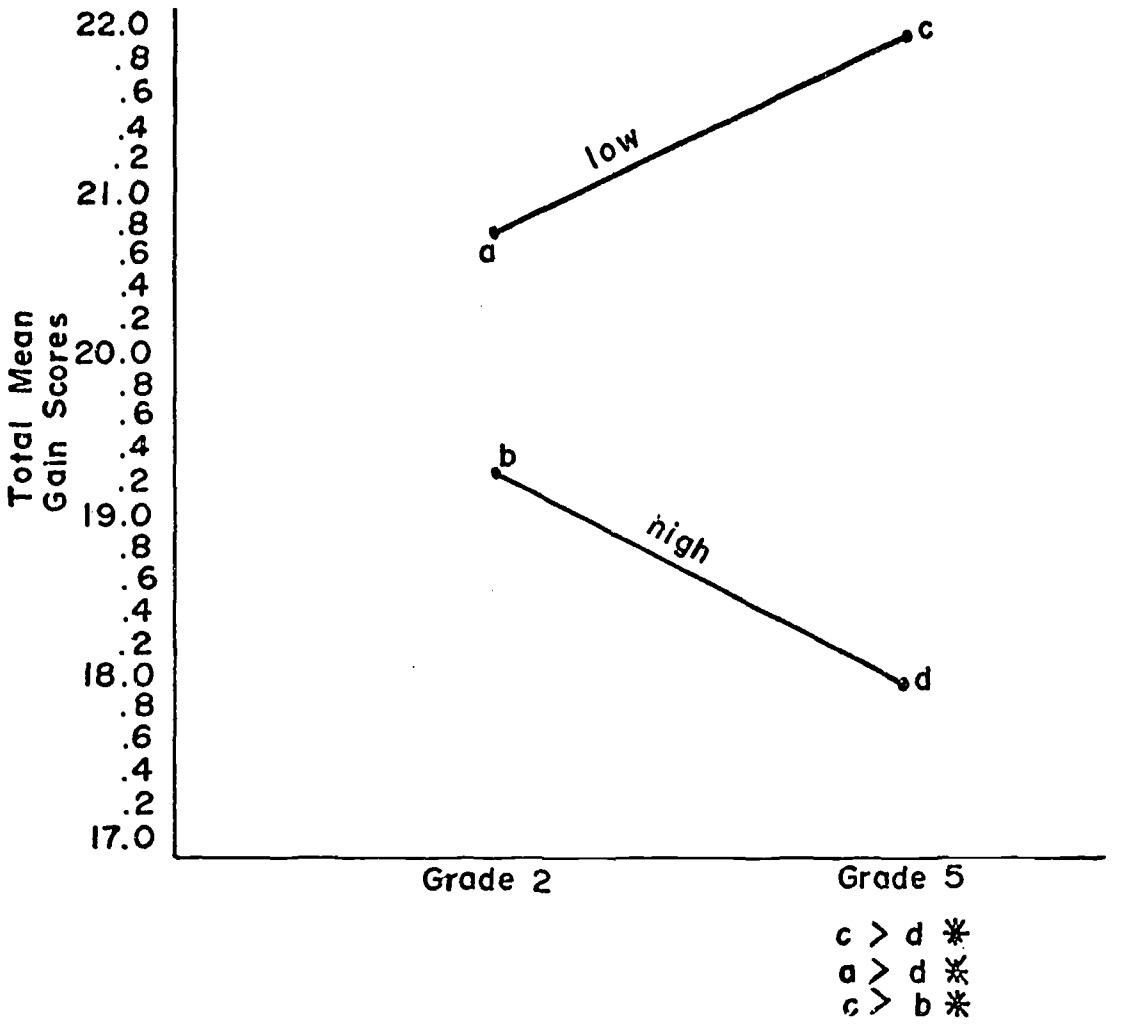

FIGURE 4

GRADE-BY-ENTRY LEVEL
INTERACTION FOR READING VOCABULARY

*p < .05

TABLE XIV

TESTS ON ALL ORDERED PAIRS OF MEANS
FOR THE GRADE-BY-ENTRY LEVEL STATUS INTERACTION
FOR READING VOCABULARY

Order	1	2	3	4
Treatments in order of Tj	d	b	a	c
Tj	17.95	19.29	20.81	21.99

	d	b	a	c
d	0.00	1.34	2.86*	4.04*
b		0.00	1.52	2.70*
a			0.00	1.18
c				0.00

Truncated range r	2	3	4
$q_{.95}(r,134)$	2.80	3.36	3.69
$q\sqrt{nMS_{error}}$	1.74	2.08	2.29

*$p < .05$

The interaction suggests, again, that high entry groups make the least gain. Further, there is the possibility that high entry level gains are negatively affected by age: mean gain for low entry level second graders was not significantly different from high entry second graders, but the mean gain for low entry level fifth graders was significantly greater than the gain for the high entry level fifth graders.

The significant interaction of treatment-by-grade-by-entry level for reading vocabulary is plotted in Figure 5, with the corresponding results of the Newman-Keuls procedure presented in Table XV. Three low entry level groups -- second grade controls, fifth grade controls, and the experimental fifth graders -- made significantly greater mean gains than the high entry level experimental fifth graders.

Here again, the low entry level groups tended to make greater mean gains, regardless of whether or not they participated in the program. Also, the older high entry level pupils were again the most negatively affected. Note that the low entry level control group of fifth graders made significantly more gain than the high entry level fifth-grade students who participated

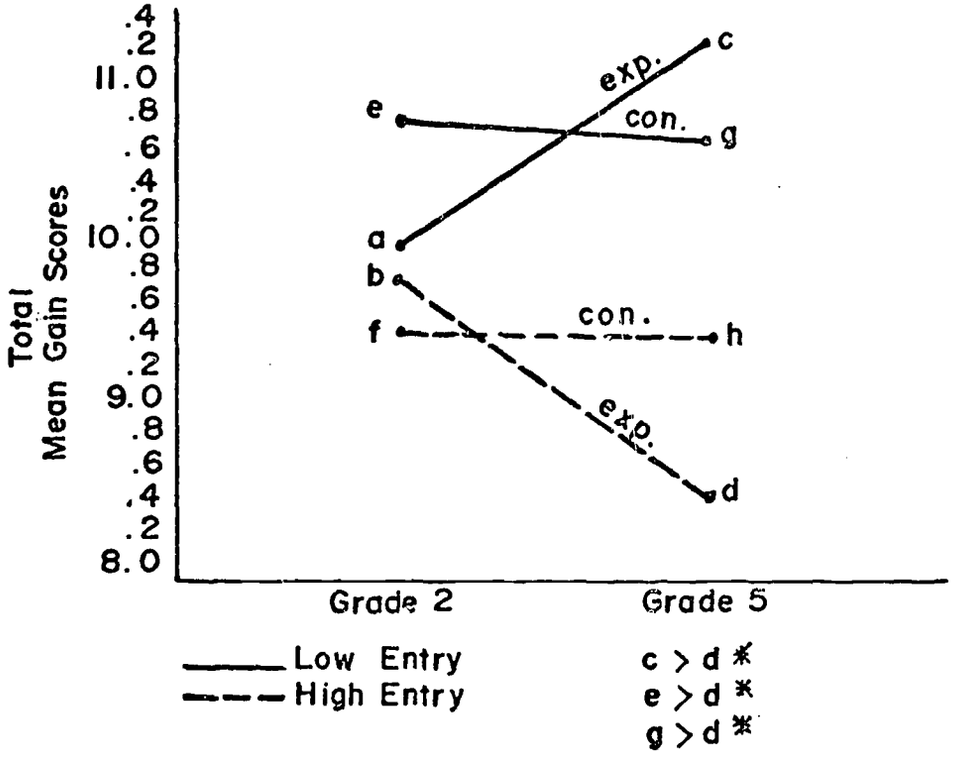

FIGURE 5

TREATMENT-BY-GRADE-BY-ENTRY LEVEL INTERACTION FOR READING VOCABULARY

*p < .05

TABLE XV

TESTS ON ALL ORDERED PAIRS OF MEANS FOR THE
TREATMENT-BY-GRADE-BY-ENTRY LEVEL STATUS INTERACTION FOR READING VOCABULARY

Order		1	2	3	4	5	6	7	8
Treatments in order of Tj		d	f	h	b	a	g	e	c
Tj		8.46	9.46	9.50	9.83	9.99	10.70	10.82	11.29
		d	f	h	b	a	g	e	c
	d	0.00	1.00	1.04	1.37	1.53	2.24*	2.36*	2.83*
	f		0.00	0.04	0.37	0.53	1.24	1.36	1.83
	h			0.00	0.33	0.49	1.20	1.32	1.79
	b				0.00	0.16	0.87	0.99	1.46
	a					0.00	0.71	0.83	1.30
	g						0.00	0.12	1.30
	e							0.00	0.59
	c								0.00
Truncated range r		2	3	4	5	6	7	8	
$q_{.95}(r,134)$		2.80	3.36	3.69	3.92	4.10	4.24	4.36	
$q\sqrt{nMS_{error}}$		1.23	1.48	1.62	1.72	1.80	1.87	1.92	

*p < .05

in the program. For reading vocabulary, the pattern of results seems to be that older, high entry level pupils were the most depressed groups in terms of gains achieved.

The trend for low entry level pupils to make greater mean gains also was reflected by the significant treatment-by-entry level interaction for reading comprehension. Figure 6 and Table XVI show that the low entry level control pupils made significantly greater gains than the high entry level control students. There was no significant difference between the gains of the low and high entry experimental groups. Again, significant gains appeared to be a function of relative degree of reading retardation rather than attributable to participation in the summer program.

Finally, Figure 7 and Table XVII[104] illustrate significantly different components of the treatment-by-grade-by-sex-by-entry level interaction for listening comprehension. The results support the evidence that high entry level and increasing age was the combination

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[104]The Newman-Keuls procedure did not identify any mean in Figure 7 as significantly different from any other mean. When the Duncan Multiple Range Test was applied, significant differences emerged. See Duncan, op. cit., 1-42, and Winer, op. cit., 85-7.

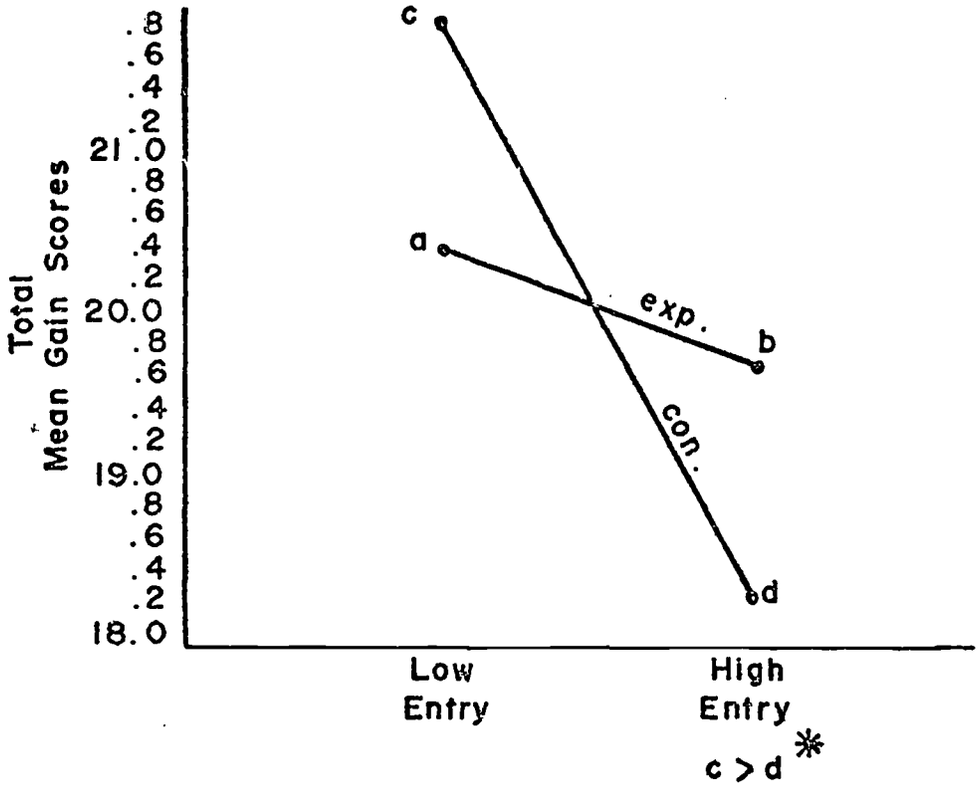

FIGURE 6

TREATMENT- BY- ENTRY LEVEL
INTERACTION FOR READING COMPREHENSION

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*$p < .05$

TABLE XVI

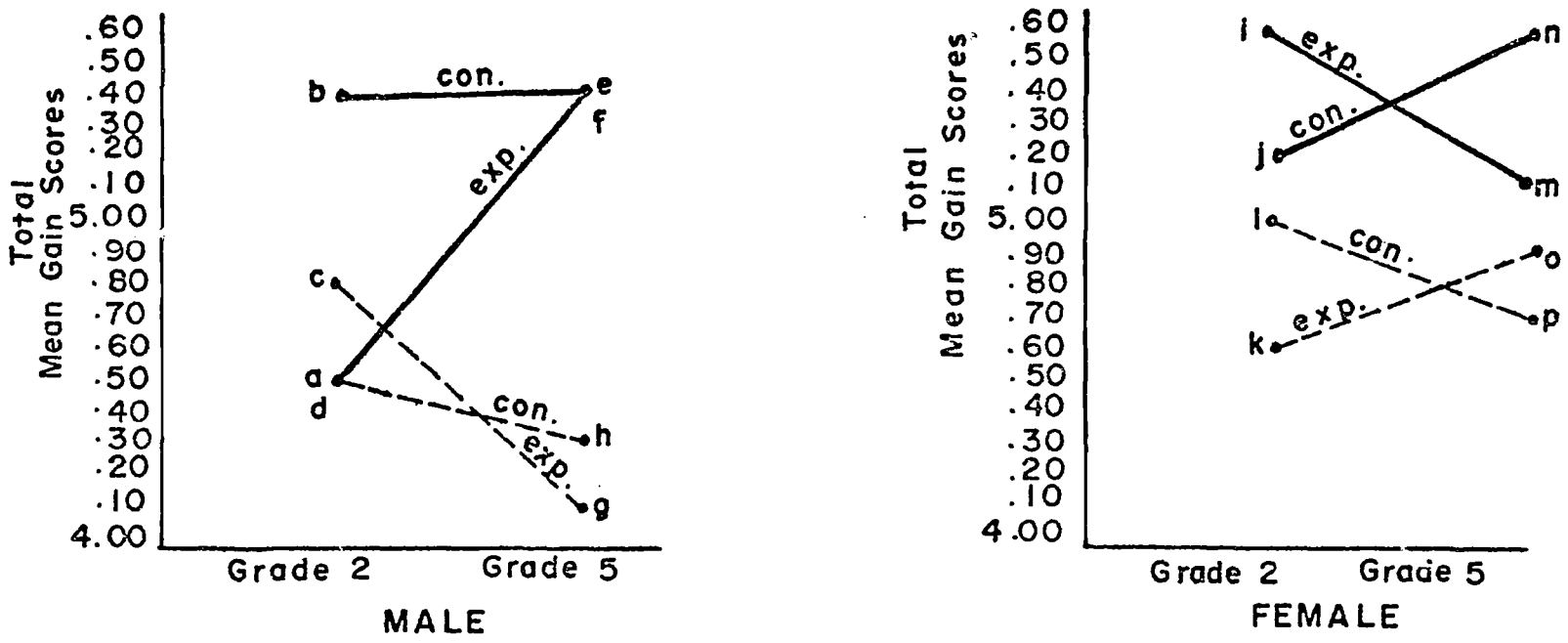
TESTS ON ALL ORDERED PAIRS OF MEANS
FOR THE TREATMENT-BY-ENTRY LEVEL STATUS INTERACTION
FOR READING COMPREHENSION

Order	1	2	3	4
Treatments in order of Tj	d	b	a	c
Tj	18.29	19.67	20.36	21.77

	d	b	a	c
d	0.00	1.38	2.07	3.48*
b		0.00	0.69	2.10
a			0.00	1.41
c				0.00

Truncated range r	2	3	4
$q_{.95}(r,134)$	2.80	3.36	3.69
$q\sqrt{nMS_{error}}$	1.88	2.25	2.47

*$p < .05$



n > g *	b > g *	i > h *	j > h *
l > g *	j > g *	f > h *	m > h *
f > g *	m > g *	e > h *	n > a *
e > g *	n > h *	b > h *	i > a *

FIGURE 7

*p <.05

TREATMENT-BY-GRADE-BY-SEX-BY-ENTRY LEVEL INTERACTION FOR LISTENING COMPREHENSION

TABLE XVII

TESTS ON ALL ORDERED PAIRS OF MEANS
FOR THE TREATMENT-BY-GRADE-BY-SEX-BY-ENTRY LEVEL STATUS INTERACTION
FOR LISTENING COMPREHENSION

Order	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Treatments in order of Tj	g	h	a	d	k	p	c	o	l	m	j	b	e	f	i	n
Tj	4.11	4.17	4.50	4.57	4.60	4.68	4.85	4.95	5.00	5.22	5.25	5.35	5.39	5.40	5.59	5.60
g	0.00	0.06	0.39	0.46	0.49	0.57	0.74	0.84	0.89	1.11*	1.13*	1.24*	1.29*	1.29*	1.48*	1.49*
h		0.00	0.32	0.40	0.43	0.51	0.68	0.78	0.83	1.05*	1.08*	1.18*	1.22*	1.23*	1.42*	1.43*
a			0.00	0.07	0.11	0.19	0.35	0.45	0.51	0.73	0.75	0.86	0.90	0.90	1.10*	1.10*
d				0.00	0.04	0.12	0.29	0.38	0.43	0.66	0.68	0.78	0.83	0.83	1.03	1.04
k					0.00	0.08	0.25	0.35	0.40	0.62	0.65	0.75	0.79	0.80	0.99	1.00
p						0.00	0.17	0.26	0.32	0.54	0.57	0.67	0.71	0.72	0.91	0.92
c							0.00	0.10	0.15	0.37	0.40	0.50	0.54	0.55	0.74	0.75
o								0.00	0.05	0.28	0.30	0.40	0.45	0.45	0.64	0.65
l									0.00	0.22	0.25	0.35	0.39	0.40	0.59	0.60
m										0.00	0.03	0.13	0.17	0.18	0.37	0.38
j											0.00	0.10	0.15	0.15	0.34	0.35
b												0.00	0.04	0.05	0.17	0.25
e													0.00	0.01	0.20	0.21
f														0.00	0.19	0.20
i															0.00	0.01
n																0.00
Truncated range r		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
$q_{.95}(r,134)$		2.77	2.92	3.02	3.09	3.15	3.19	3.23	3.26	3.29	3.32	3.34	3.36	3.38	3.40	3.41
$q\sqrt{nMS_{error}}$		0.89	0.93	0.97	0.99	1.01	1.02	1.03	1.04	1.05	1.06	1.07	1.08	1.08	1.09	1.09

*$p < .05$

least amenable to positive gains in achievement, regardless of treatment group.

Hypothesis III

No significant difference exists between the experimental and control groups in mean gain scores of: (1) self esteem: (2) identification with teachers; and (3) identification with friends. The hypothesis was supported. No significant main effects for treatment groups was obtained for self esteem or identification with significant others (teachers and friends) as can be seen by examination of Tables XVIII, XIX, and XX. Several speculations concerning this finding can be made, although any interpretations must be very cautious, since the reliability of the test instrument was far from optimal.

Perhaps, as has been demonstrated by Rosenthal, the phenomenon of self-fulfilling prophecies was operating.[105] This interpretation would suggest that teacher expectations for the pupils in the program were low.

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[105] Robert Rosenthal, "Self-Fulfilling Prophecies in Behavioral Research and Everyday Life," in Malcolm P. Douglass (ed.), Self and Society, 32nd Yearbook of the Claremont Reading Conference, 1968, 15-33.

TABLE XVIII

ANALYSIS OF VARIANCE FOR SELF ESTEEM

Source of Variance	Degrees of Freedom	Sums of Squares	Means Squares	F Ratio
Treatments	1	.220	.220	.030
Grades	1	.207	.207	.028
Sexes	1	1.629	1.629	.219
Levels	1	279.274	279.274	37.568*****
Treatments by Grades	1	11.266	11.266	1.515
Treatments by Sexes	1	1.167	1.167	.157
Treatments by Levels	1	8.066	8.066	1.085
Grades by Sexes	1	4.799	4.799	.646
Grades by Levels	1	71.192	71.192	9.577****
Sexes by Levels	1	23.310	23.310	3.136
Treatments by Grades by Sexes	1	13.720	13.720	1.846
Treatments by Grades by Levels	1	23.222	23.222	3.124
Grades by Sexes by Levels	1	.237	.237	.032
Treatments by Grades by Sexes by Levels	1	17.623	17.623	2.371
Subjects/Treatments by Grades by Sexes by Levels	134	996.164	7.434	

*****p < .001
****p < .005

TABLE XIX

ANALYSIS OF VARIANCE FOR IDENTIFICATION WITH TEACHERS

Source of Variance	Degrees of Freedom	Sums of Squares	Means Squares	F Ratio
Treatments	1	11.284	11.284	3.139
Grades	1	.375	.375	.104
Sexes	1	4.287	4.287	1.192
Levels	1	105.108	105.108	29.237*****
Treatments by Grades	1	.725	.725	.202
Treatments by Sexes	1	2.122	2.122	.590
Treatments by Levels	1	3.296	3.296	.917
Grades by Sexes	1	5.476	5.476	1.523
Grades by Levels	1	5.910	5.910	1.644
Sexes by Levels	1	.244	.244	.068
Treatments by Grades by Sexes	1	2.060	2.060	.573
Treatments by Grades by Levels	1	.008	.008	.002
Grades by Sexes by Levels	1	1.461	1.461	.406
Treatments by Grades by Sexes by Levels	1	2.896	2.896	.806
Subjects/Treatments by Grades by Sexes by Levels	134	481.766	3.595	

*****p < .001

TABLE XX

ANALYSIS OF VARIANCE FOR IDENTIFICATION WITH FRIENDS

Source of Variance	Degrees of Freedom	Sums of Squares	Means Squares	F Ratio
Treatments	1	2.045	2.045	.582
Grades	1	2.561	2.561	.729
Sexes	1	.574	.574	.163
Levels	1	122.489	122.489	34.867****
Treatments by Grades	1	.924	.924	.263
Treatments by Sexes	1	.003	.003	.001
Treatments by Levels	1	.437	.437	.124
Grades by Sexes	1	.716	.716	.204
Grades by Levels	1	12.749	12.749	3.630
Sexes by Levels	1	.345	.345	.098
Treatments by Grades by Sexes	1	2.715	2.715	.773
Treatments by Grades by Levels	1	4.278	4.278	1.218
Grades by Sexes by Levels	1	2.338	2.338	.666
Treatments by Grades by Sexes by Levels	1	6.645	6.645	1.892
Subjects/Treatments by Grades by Sexes by Levels	134	470.788	3.513	

****p < .005

All of these students were referred to the program because of poor achievement. It is possible that some teachers, quite undeliberately, reflected in their behavior an attitude that little could be expected from the pupils. The children, in turn, "lived down" to teacher expectations and thus did not exhibit significant gains in either self esteem or achievement. If this interpretation has credence, perhaps an in-service component aimed at sensitizing teachers to their feelings concerning low achievers would have been a helpful asset to the program.

Another possibility is that lack of information concerning children's specific needs in reading and listening skills produced poorly articulated or non-specific instructional goals. If such conditions existed, opportunities for pupils to experience consistent success in learning activities would be curtailed. Assuming that frequent success tends to enhance self esteem, pupils may not have had sufficient opportunities to enjoy achievement in academic activities, and this lack was reflected in minimal gains in self concept.

Data from classroom observations suggest another possible interpretation. Carlton and Moore demonstrated

that regular exposure to creative dramatics enhanced the self esteem and reading skills of disadvantaged first graders.[106] The classroom observation data collected for this study indicated that speaking opportunities were the least frequently observed activities in the program. Perhaps a relatively simple strategy for building positive self concepts, unfortunately, was neglected.

Entry level differences. As in the case of the data for achievement in reading and listening, pupils who had low entry level status made significantly greater mean gains in self esteem than high entry level pupils. The low entry level pupils also scored significantly higher on the tests of identification with teachers and friends. High scores on these two tests indicated greater independence in pupil relationships with teachers and friends.

Hypothesis IV

No significant interactions exist between or among the factors of treatment group, grade, sex, or entry level status for mean gain scores of: (1) self esteem; (2) identification with teachers; or (3) identification

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[106] Carlton and Moore, op. cit.

with friends. The hypothesis was rejected for self esteem and supported for identification with significant others (teachers and friends).

Figure 8 and Table XXI illustrate the significant interaction between grade-by-entry level status for self esteem. The interaction in this case was overall: each mean was significantly different from every other mean. As in the case of interactions involving entry level status for gains in reading and listening, the low entry level pupils made significantly greater gains than the high entry level pupils. However, unlike the data for reading and listening, increasing age was not associated with less gain, since the mean gain for the high entry level second graders was significantly less than the gain for high entry level fifth graders.

The decline in mean gains of self esteem for the second grade high entry level pupils was especially steep. Perhaps younger children are more erratic in responding to measures of self esteem, since their self concept is less likely to be as stable as the self perceptions of older pupils. Younger children may be, so to speak, more vulnerable to changing internal moods and fluctuations in aspects of the external

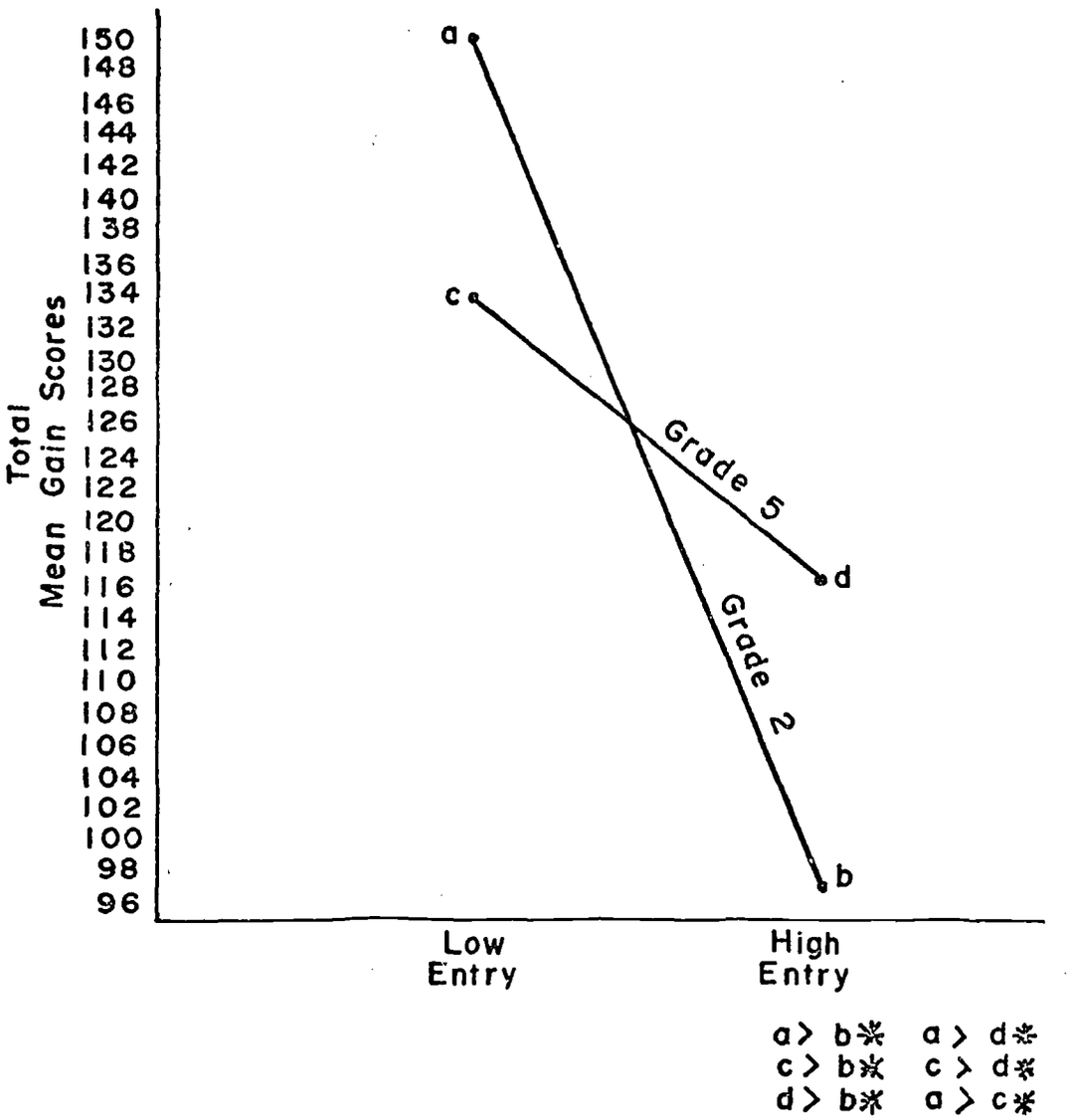

FIGURE 8

GRADE-BY-ENTRY LEVEL
INTERACTION FOR SELF ESTEEM

*p < .05

TABLE XXI

TESTS ON ALL ORDERED PAIRS OF MEANS
FOR THE GRADE-BY-ENTRY LEVEL STATUS INTERACTION
FOR SELF ESTEEM

Order	1	2	3	4
Treatments in order of Tj	b	d	c	a
Tj	99.70	117.49	134.03	150.00

	b	d	c	a
b	0.00	17.79*	34.33*	50.30*
d		0.00	16.54*	32.51
c			0.00	15.97*
a				0.00

Truncated range r	2	3	4
$q_{.95}(r,134)$	2.80	3.36	3.69
$q\sqrt{nMS_{error}}$	15.26	18.31	20.11

*p < .05

environment which are viewed as significant for feelings concerning the self.

In Chapter IV, the analysis and interpretation of the data were presented. The final chapter contains a summary of the study, conclusions and recommendations.

CHAPTER V

SUMMARY, GENERAL CONCLUSIONS, AND RECOMMENDATIONS

In this chapter, a summary of the study and conclusions and recommendations are presented. The summary contains a statement of the purpose of the study, the specific objectives, the hypotheses tested, and the results of the statistical analysis. The conclusions and recommendations are based on the findings and interpretations of the data.

SUMMARY

The study developed from a need to assess the effects of a summer communication skills program upon selected language arts skills of disadvantaged Negro pupils. Specifically, the purpose of the study was to determine whether or not differences in mean gains for reading and listening achievement and components of the self concept (self esteem and identification with teachers and friends) were observable between pupils who participated in the program and similar children who did not receive any academic instruction during the summer months.

The specific objectives of the study were:

1. to determine if any significant differences in gains for reading and listening achievement existed at the end of the program between pupils who participated in the program and similar children who did not attend.

2. to determine if any significant differences in gains for self esteem and identification with significant others (teachers and friends) existed at the end of the program between pupils who participated in the program and similar children who did not attend.

The sample for the study consisted of 80 disadvantaged Negro second graders and 70 disadvantaged Negro fifth graders. Half of the second graders and half of the fifth graders attended the program. The remaining pupils served as controls.

Pupils participating in the program attended class for two and a half hours a day, five days per week, during June 12 through July 23, 1969.

Pre- and post-program achievement in reading was measured by the Gates-MacGinitie Reading Tests - Primary B (Forms 1 and 2) at the second grade level. At the fifth grade level, the Gates-MacGinitie Reading Tests - Survey D (Forms 1 and 2) were used. Listening was measured at the

second grade level by the Cooperative Primary Tests - Listening (Forms 12A and 12B). The Sequential Tests of Educational Progress - Listening (Forms 4A and 4B) were used at the fifth grade level. For both pre- and post-testing, the Self Social Symbols Tasks (Primary Form) was used to measure self concept at both grade levels.

A four-factor, treatments-by-blocks design was used to examine program effects while other sources of variance were controlled.

Four hypotheses were tested in the study:

1. No significant difference exists between the experimental and control groups in mean gain scores of: (1) reading vocabulary; (2) reading comprehension; and (3) listening comprehension.

2. No significant interactions exist between or among the factors of treatment group, grade, sex, or entry level status for mean gain scores of: (1) reading vocabulary; (2) reading comprehension; and (3) listening comprehension.

3. No significant difference exists between the experimental and control groups in mean gain scores of: (1) self esteem; (2) identification with teachers; and (3) identification with friends.)

4. No significant interactions exist between or among the factors of treatment group, grade, sex, or entry level status for mean gain scores of: (1) self esteem; (2) identification with teachers; and (3) identification with friends.

The first and third hypotheses were supported. No main treatment effects were obtained for reading, listening, or self concept data.

The second hypothesis was rejected. For reading vocabulary, there were three significant interactions. In the grade-by-sex interaction, the gain for second grade girls was significantly greater than the gain for second grade boys. Examination of the significant grade-by-entry level status interaction revealed greater gains for second and fifth graders who were low entry level pupils. The three-way interaction of treatment, grade, and entry level status indicated that three low entry level groups -- pupils serving as second grade controls, pupils serving as fifth grade controls, and pupils in the fifth grade experimental group -- made significantly greater gains than the high entry level experimental fifth graders.

The trend for low entry level pupils to make greater gains also was reflected by the significant treatment-by-entry level interaction for reading comprehension. Low entry level control pupils made significantly greater gains than the high entry level control students. There was no significant difference between the gains of the low and high entry experimental groups.

For listening comprehension, a significant four-way interaction of treatment, grade, sex, and entry level status was obtained. This interaction supported evidence that high entry level status and increased age was the combination least amenable to positive gains in achievement, regardless of treatment group.

The fourth hypothesis was rejected for self esteem and supported for identification with teachers and friends. A significant overall grade-by-entry level status interaction occurred for self esteem: low entry level students at both grade levels made greater gains in self esteem than high entry level pupils. No significant interactions were obtained for identification with teachers and friends.

The single main effect consistently obtained was for entry level status. On all six dependent variables,

the main effect for entry level status was significant and favored the low entry level groups.

CONCLUSIONS

On the basis of the analysis and interpretation of the data, the following conclusions were determined:

1. There was no evidence that the pupils in this study who participated in the summer program made significant gains in reading or listening achievement. No treatment main effect was observed for reading vocabulary, reading comprehension, or listening comprehension.

It is possible that selection procedures for identifying the sample population resulted in an excessive number of clinical, as differentiated from corrective, reading problems among the pupils. If this was the case, substantial achievement gains during a six-week program would be unlikely.

Another explanation for the lack of significant gains is that there was no systematic gathering of diagnostic information concerning the pupils immediately prior to, or at the beginning of, the summer program. This condition may have resulted in non-specific or poorly articulated instructional objectives. Under such

circumstances, especially when the brevity of the program is considered, the chances of substantial gains in achievement would be minimal.

2. There was no evidence that the pupils in this study who participated in the summer program made positive gains in self concept. No treatment main effects were observed for self esteem, identification with teachers, or identification with friends.

Although conclusions based upon the results of the self concept measure utilized in the study must be cautious, it is possible that teacher expectations may have played a role in the lack of change in pupil self concepts. Since the pupils were referred to the program because of poor achievement, some teachers may have held low expectations concerning pupil growth and in subtle ways communicated this attitude to the pupils. The response of pupils to such an attitude could have inhibited gains in both achievement and self concept.

Another explanation may be that there was not a consistent pattern of success in achievement-oriented activities for students. Such a condition could be an outgrowth of a lack of specific diagnostic information concerning pupil needs in reading and listening.

It is also possible that there were not numerous experiences for pupils which provided opportunities for creative, non-achievement-oriented responses, especially in the area of oral expression. Data gathered through classroom observation indicated little emphasis upon speaking activities, a means of communication in which level of academic achievement does not play a major role, and thus success is available to all students.

3. There was evidence that the pupils in this study who were the poorer achievers made greater gains in both achievement and self concept than the children who were less retarded at the beginning of the program. The main effect for entry level status was significant for reading, listening, and self concept. This effect, however, could not be attributed to participation in the program. Examination of several interactions revealed that the poorer achievers in both experimental and control groups made greater gains than the higher achievers in either the experimental or control groups.

RECOMMENDATIONS

The following recommendations for future research are made as a result of this study:

1. Research is needed involving experimental designs in which stratified sampling procedures make possible the examination of the relative gains pupils of varying degrees of reading disability achieve during brief instructional programs. The results of such studies might yield practical guidelines for pupil selection.

2. Research is needed which provides followup data on pupils participating in summer programs. Although no significant gains in academic achievement were obtained in this study, the possibility of delayed effects exists. Moreover, several other studies of summer programs reported substantial gains. Information concerning the maintenance of achieved gains and the rate of post-program gains is needed.

3. Research is needed concerning the possibility of differential impact upon pupil achievement and self concept when the degree of emphasis upon skill-oriented and creative response activities are systematically varied. Perhaps total, or nearly total, concentration

upon academic skill development during short instructional programs do not produce the optimal conditions for academic and/or attitudinal growth.

4. Research is needed concerning the effects upon self concept among low achievers when teachers have been trained to utilize classroom-oriented strategies for facilitating positive growth in self perceptions. It is conceivable that a major justification for the implementation of summer programs lies in the area of attitudes rather than achievement.

The following recommendations for improving the implementation of summer language arts programs are made as a result of this study:

1. Pupil selection procedures for summer programs need to be examined in terms of identifying those children most likely to profit from brief instructional programs. Establishing selection strategies should evolve from a clearly-defined position as to the appropriateness of the program for moderately or seriously disabled readers.

2. Selection procedures for identifying teachers most likely to facilitate growth in language arts skills

in pupils during brief instructional programs need to be considered. Of paramount importance would be the teacher's ability to analyze both formal and informal test results to identify specific skill needs for individual pupils. Several of the techniques for evaluation of teachers' diagnostic skills described by May could be adapted readily as a selection procedure for teachers prior to summer employment.[107]

3. Provision should be made for systematic gathering of diagnostic information concerning pupil needs. Item analyses for the most recently administered survey tests prior to the program might be helpful. Development of brief, informal diagnostic procedures which could be administered during the first few days of a program might facilitate the development of specific and relevant instructional goals for pupils.

4. In-service training which is characterized by specific goals and provision for immediate practice of new skills or understandings should be a component of summer programs. Small class size and freedom from many

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[107] Frank B. May, To Help Children Read: Mastery Performance Modules for Teachers in Training (Columbus, Ohio: Charles E. Merrill Publishing Company, 1973), 117-92.

of the duties usually required of teachers during the regular school term make summer programs potentially effective learning laboratories for teachers. Informal diagnostic techniques, for example, could be studied and readily implemented in a summer program. Ideally, perhaps, an in-service component should be a consistent -- even daily -- feature of a summer program, rather than an intensive pre-program experience.

5. Serious consideration should be given to provide ways for teachers to have adequate planning time. Ideally, planning time should not be left to the end of the workday. Even for small groups of children, programs involving individual skill sequences specific enough for implementation require consistent evaluation and determination of instructional objectives.

6. In summer programs purported to be a language arts approach to instruction, provision needs to be made to achieve and maintain a balance among instructional activities, so that one area of instruction -- usually reading -- is not overemphasized. In many instances, a better balance could be achieved by promoting teacher awareness of the potential for listening and speaking activities provided by teacher adaptations of many

materials. Implementation of aural-oral activities, where open-ended, non-achievement-oriented responses are encouraged, would seem to be particularly important in programs where pupils' reading achievement is severely limited.

BIBLIOGRAPHY

BOOKS

Bond, Guy L. and Miles Tinker. Reading Difficulties: Their Diagnosis and Correction. Second edition. New York: Meredith Publishing Company, 1967.

Brookover, William B., Ann Paterson, and Shuler Thomas. Self-Concept of Ability and School Achievement. East Lansing: Michigan State University, Office of Research and Publications, 1962.

_____, E. L. Erickson, and L. M. Jointer. Self-Concept of Ability and School Achievement, III: Relationship of Self-Concept to Achievement in High School. East Lansing: Michigan State University, Office of Research and Publications, 1967.

Cheyney, Arnold B. Teaching the Culturally Disadvantaged in the Elementary School. Columbus, Ohio: Charles E. Merrill Publishing Company, 1967.

Gates, Arthur I. and Walter H. MacGinitie. Teacher's Manual for Gates-MacGinitie Reading Tests - Primary B (Forms 1 and 2). New York: Teachers College Press, 1965.

_____. Teacher's Manual for Gates-MacGinitie Reading Tests - Survey D (Forms 1, 2, and 3). New York: Teachers College Press, 1965.

_____. Technical Manual for Gates-MacGinitie Reading Tests. New York: Teachers College Press, 1965.

Gordon, Edmund W. and Doxey A. Wilderson. Compensatory Education for the Disadvantaged. New York: College Entrance Examination Board, 1966.

Handbook for the Cooperative Primary Tests. Princeton, New Jersey: Educational Testing Service, 1967.

Lecky, P. Self Consistency, a Theory of Personality. New York: Island Press, 1945.

Long, Barbara H., Edmund H. Henderson, and Robert C. Ziller. Manual for the Self-Social Symbols Method. (first draft) Newawk: University of Delaware, undated. (Mimeographed)

Maslow, Abraham H. Motivation and Personality. New York: Harper and Row, Publishers, 1954.

May, Frank B. To Help Children Read: Mastery Performance Modules for Teachers in Training. Columbus, Ohio: Charles E. Merrill Publishing Company, 1973.

Model Programs: Reading. Summer Junior High School, New York, New York. Washington: Government Printing Office, 1971.

Model Programs: Reading. Summer Remedial and Enrichment Program, Thomasville, Georgia. Washington: Government Printing Office, 1971.

Myers, Jerome L. Fundamentals of Experimental Design. Boston: Allyn and Bacon, 1966.

Purkey, William W. Self Concept and School Achievement. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1970.

Rogers, Carl R. Client-Centered Therapy. Boston: Houghton, Mifflin Company, 1945.

St. James Population and Economy. New Orleans: Planning Services, Inc., April, 1968.

Snygg, Donald and Arthur W. Combs. Individual Behavior: A New Frame of Reference for Psychology. New York: Harper and Brothers, 1949.

STEP Manual for Interpreting Scores - Listening. Princeton, New Jersey: Educational Testing Service, 1957.

Winer, B. J. Statistical Principles in Experimental Design. New York: McGraw Hill Book Company, 1962.

Wylie, Ruth C. The Self-Concept: A Critical Survey of Pertinent Research Literature. Lincoln: University of Nebraska Press, 1961.

PUBLICATIONS OF THE GOVERNMENT, LEARNED SOCIETIES, AND OTHER ORGANIZATIONS

Detroit Public Schools, Research and Development Department, Evaluation of the Communication Skills Center Project. ERIC ED 016 020, 1967.

Thorn, Elizabeth A. "The Effect of Direct Instruction in Listening on the Listening and Reading Comprehension of First-Grade Children," ERIC ED 029-693,1968.

Udall, Morris J. "The Dilemma of Rural Youth." Speech presented at the National Outlook Conference on Rural Youth, October, 1967, Washington, D. C. ERIC ED 017 363.

United States Department of Health, Education and Welfare, Washington, D. C., Title I Program Guide No. 36 Division of Compensatory Education, John F. Hughes, Director.

JOURNALS

Aaron, Ira, Byron Callaway, Randall Hicks, and Hazel Simpson. "Reading Achievement in a Summer Reading Program," Elementary English Journal, XLIV (December, 1967), 875-82.

Bledsoe, Joseph C. "Self-Concepts of Children and Their Intelligence, Achievement, Interests, and Anxiety," Childhood Education, XLIII (March, 1967), 436-7.

Bond, Guy L. and Robert Dykstra. "The Cooperative Research Program in First Grade Reading Instruction," Reading Research Quarterly, II (Summer, 1967), 123.

Brown, Charles T. "Three Studies of the Listening of Children," Speech Monographs, XXXII (June, 1965), 129-38.

Caplin, Morris D. "The Relationship Between Self Concept and Academic Achievement," The Journal of Experimental Education, XXXVII (Spring, 1969), 13-6.

Carlton, Lessie and Robert H. Moore. "The Effects of Self Directive Dramatization on Reading Achievement and Self-Concept of Culturally Disadvantaged Children," Reading Teacher, XX (November, 1966), 125-30.

Cleland, Donald L. and Isabella H. Toussaint. "The Interrelationships of Reading, Listening, Arithmetic Computation, and Intelligence," Reading Teacher, XV (January, 1962), 228-31.

Coopersmith, Stanley. "A Method for Determining Types of Self-Esteem," Journal of Abnormal and Social Psychology, LIX (February, 1959), 87-94.

Corbin, Don. "A Successful Summer Reading Program," School and Community, LVIII (April, 1972), 33.

Cramer, Ward and Suzanne Dorsey. "A Summer Developmental Reading Program for Rural Students," Reading Teacher, XXII (May, 1969), 585-90.

Devine, Thomas G. "The Development and Evaluation of a Series of Recordings for Teaching Certain Critical Listening Abilities," Dissertation Abstracts, XXII: 3546-7, 1962.

_____. "Reading and Listening: New Research Findings," Elementary English, XLV (March, 1968), 348.

Duker, Samuel. "Listening and Reading," Elementary School Journal, LXV (March, 1965), 321-9.

Duncan, David B. "Multiple Range and Multiple F Tests," Biometrics, XI, No. 1, 1955, 1.

Durr, W. K. and R. R. Schmatz. "Personality Differences Between High-Achieving and Low-Achieving Gifted Children," Reading Teacher, XVII (January, 1964), 254-8.

Dyson, E. "Study of Ability Grouping and the Self-Concept," Journal of Educational Research, LX (May, 1967), 403-5.

Edington, Everett D. "Disadvantaged Rural Youth," Review of Educational Research, XL (February, 1970), 69.

Fawcett, Annabel E. "The Effect of Training in Listening Upon the Listening Skills of Intermediate Grade Children," Dissertation Abstracts, XXV: 7108-9, 1965.

Fink, M. B. "Self-Concept as it Relates to Academic Achievement," California Journal of Educational Research, XXII (February, 1965), 57-62.

Franco, E. J. "Operation Upgrade," Journal of Reading, XVI (November, 1972), 120-3.

Fredericks, Allen H. "Relationship of Self Esteem of Disadvantaged to School Success," Journal of Negro Education, XL (Spring, 1972), 117-20.

Gomberg, Adeline. "The Lighthouse Day Camp Reading Experiment with Disadvantaged Children," Reading Teacher, XIX (January, 1966), 243-6.

Hill, Charles H. "A Summer Reading Program with American Indians," Journal of American Indian Education, IX (May, 1970), 10-14.

Hollingsworth, Paul M. "So They Listened: The Effects of a Listening Program," Journal of Communication, I (March, 1965), 14-6.

Jones, John G. "Measures of Self Perception as Predictors of Scholastic Achievement," Journal of Educational Research, LXIII (January, 1970), 203.

Kellogg, Ralph E. "A Study of the Effect of a First Grade Listening Instructional Program upon Achievement in Listening and Reading," Dissertation Abstracts, XXXVIII: 395-A, 1967.

Lewis, Maurice S. "The Effect of Training in Listening for Certain Purposes Upon Reading for the Same Purposes," Journal of Communication, II (November, 1952), 81-4; III (November, 1953), 115-9.

Ludwig, David J. and Martin R. Maehr. "Changes in Self Concept and Stated Behavioral Preferences," Child Development, XXXVIII (June, 1967), 435-67.

Lumpkin, Donavon D. "The Relationship of Self-Concept to Achievement in Reading," Dissertation Abstracts, XX: 204-5, 1959.

Madden, Theodore M. "The Effect of Instruction and Practice in Certain Skills Through the Media of Reading and Listening Upon Various Aspects of Proficiency in Reading and Listening," Dissertation Abstracts, XX (Part 2): 2178-9.

Maginnis, George H. "Reading Disability and Remedial Gain," Journal of Learning Disabilities, IV (June-July, 1971), 322-4.

Marsden, Ware W. "A Study of the Value of Training in Listening to Achievement in Reading," an unpublished doctoral field study, Colorado State College of Education.

Merson, Edna May. "The Influence of Definite Listening Lessons on the Improvement of Listening and Reading Comprehension and Reading Vocabulary," Dissertation Abstracts, XXII (Part 4): 3120-1, 1961.

Mousley, Woodrow. "Testing the Summer Learning Loss Argument," Phi Delta Kappan, LIV (June, 1973), 10.

Page, Ellis B. "Teacher Comments and Student Performance: A Seventy-Four Classroom Experiment in School Motivation," Journal of Educational Psychology, XLIV (August, 1958), 173-81.

Piers, Ellen and Dale B. Harris. "Age and Other Correlates of Self-Concept in Children," Journal of Educational Psychology, LV (April, 1964), 91-5.

Reddin, Testoy. "Informal Listening Instruction and Reading Improvement," Reading Teacher, XXII (May, 1969), 742-3.

Reeves, Harriet R. "The Effects of Training in Listening upon Reading Achievement," Dissertation Abstracts, XXVI: 7181-2, 1966.

Ruddell, Robert B. "Oral Language and the Development of other Language Skills," Elementary English, XLIII (May, 1966), 492.

Shaw, M. C. and G. J. Alves. "The Self-Concept of Bright Academic Underachievers Continued," Personnel and Guidance Journal, XLII (December, 1963), 401-3.

Soares, A. T. and L. M. Soares. "Self Perceptions of Culturally Disadvantaged Children," American Educational Research Journal, VI (January, 1969), 24.

Staines, J. W. "Self Picture as a Factor in the Classroom," British Journal of Educational Psychology, XXVIII (June, 1958), 98-111.

Trivette, Sue E. "The Effect of Training in Listening for Specific Purposes," Journal of Educational Research, LIV (March, 1961), 276-7.

Winter, Clotilda. "Listening and Learning," Elementary English, XLIII (October, 1966), 569-72.

Young, Virgil M. "Summer School for Poor Readers -- A Title I Model Project," Reading Teacher, XXIV (March, 1971), 526-35.

Zimmerman, Irla Lee and George N. Allebrand. "Personality Characteristics and Attitudes Toward Achievement," Journal of Educational Research, LIX (September, 1965), 28-30.

ESSAYS AND ARTICLES IN COLLECTIONS

Athey, Irene. "Personality Factors and the Development of Successful Readers," New Frontiers in College-Adult Reading, edited by G. B. Schick and M. M. May, 133-9. Yearbook of the National Reading Conference, Volume XV, 1966.

Gates, Arthur I. "Sex Differences in Reading," Readings on Reading, John J. Dlabal and Leonard Kise, editors. Scranton, Pennsylvania: International Textbook Company, 1969. 199-201.

Rosenthal, Robert. "Self Fulfilling Prophecies in Behavioral Research and Everyday Life," Self and Society, 15-33. Malcolm P. Douglass, editor. 32nd Yearbook of the Claremont Reading Conference, 1968.

Thorndike, Robert L. "Reliability," Educational Measurement, edited by E. F. Lindquist, 609-10. Washington, D.C.: American Council on Education, 1951.

Witmer, Helen L. "Children and Poverty," The Disadvantaged Child: Issues and Innovations, Joe L. Frost and Glenn R. Hawkes, editors. New York: Houghton Mifflin Company, 1966.

ENCYCLOPEDIA ARTICLES

Stefflre, Buford. "Counseling Theory," Encyclopedia of Educational Research (4th edition), Robert L. Ebel, editor. New York: The Macmillan Company, 1969.

APPENDIX A

DESCRIPTION OF THE SUMMER COMMUNICATION SKILLS PROGRAM, ST. JAMES PARISH, LOUISIANA

In the summer program, two instructional blocks of time were taught by each teacher. During the morning session, pupils who attended grades one through four during the regular school term participated in the program from 8:30 a.m.-11:00 a.m. After an hour and a half break, the pupils who were in grades five through eight during the regular school year attended the program from 12:30 p.m.-3:00 p.m. No morning or afternoon group exceeded 15 pupils.

The instructional program was implemented by means of activity or interest centers set up in each classroom. The use of such an approach to instruction was facilitated by availability of a wide assortment of materials and the services of a full-time teacher aide in every classroom. In this appendix, a description of the on-going program is provided.

As the children arrived for each session, they checked the chalkboard to determine where they would begin the day's activities. Before class each day, the teacher wrote in the children's names under the title of the

activity centers which were listed on the chalkboard. The schedule was set up so that the teacher met with every child, either in a group or on an individual basis, every day in the reading skills center. Every child also worked in the listening center each day. Use of the other centers was open to the child's choice, with the stipulation that each child should work in the writing center at least twice a week.

Although work in the centers was the principle approach to instruction, in most classrooms a total group activity was planned each day for a 15- to 30-minute period occurring about halfway through the two and a half hour instructional block of time. This total group activity was usually oral reading to the children by the the teacher. However, a music class was scheduled once every week in every classroom. During this period, a music teacher who traveled from school to school taught songs, played folk music on her guitar, and/or taught the pupils simple dance steps.

A description of the activities commonly observed in each of the centers is provided below. A list of teaching materials available for use in every classroom is provided in Appendix C.

Reading Skills Center

This center served as the base of operation for the teacher. Here the pupils worked with the teacher in small groups or individually on directed reading activities and specific skill building. In the case of non-readers, a frequent activity was the composing of group-dictated story charts.

Observation of teachers working in this center indicated heavy reliance on directed reading activities taken from basal readers. There were several different basal series available for use; teachers were free to select the series they felt were best suited to their pupils. In any one classroom, several basals were in use, since teachers avoided using materials the children had been exposed to during the regular school term.

When a directed reading activity was undertaken, teachers grouped pupils on the basis of the children's scores on the Gates-MacGinitie tests administered before the beginning of the program. Materials for specific skill activities were taken from the workbooks which accompanied each basal series and also from the supplementary skill kits available in each classroom.

Library Center

This was a quiet area in the classroom where children could read or look at books of their own choice. A wide assortment of trade books was available in every classroom. Many of these books had been removed from the c ntral parish school library, which was open during the summer months so that teachers could maintain a constant flow of new materials in the classroom. Another major source of book was a large supply of paperbacks ordered for use in the summer program by the teachers before the program began.

In most classrooms some kind of carpeting and a supply of pillows had been obtained for this center. Pupils could sprawl comfortably on the floor as they read. Children were not required to keep a record of the books they had read, but they were encouraged to share their reading with peers when they met with the teacher in the reading skills center.

Writing Center

Two types of activities were usually in progress in the writing center. A common procedure for pupils who had achieved a degree of independence in writing was for

the child to select a picture about which to write a story. When he finished his work, he was encouraged to read his work to one of his peers. If he had any questions, he sought help from the teacher or aide.

Children who could not write were encouraged to dictate stories about pictures on display in the center. If the teacher or aide was not available to take dictation, the pupils could tape record their work for later transcription. Most teachers utilized the pupils' individually-dictated stories as reading material when the pupils met with her in the reading skills center.

Listening-Viewing Center

Three types of materials were used in the listening-viewing area: tapes and records for building specific listening skills; read-and-listen materials, and filmstrips to be viewed while the text was read by the teacher aide. Each teacher was free to decide how pupils would be exposed to these materials. In most classrooms, two or three specific skill tapes were brought out for use each day. Read-a-long materials and filmstrips were chosen by the pupils according to their own preferences. Since there were several headphones available,

along with at least one tape recorder, a record player, and a filmstrip projector, it was possible to have more than one listening activity in progress at the same time.

The listening area was usually under the supervision of the teacher aide. When necessary, the aide set up materials before the session began, and she was available for reading aloud the text which accompanied most of the filmstrips. In classrooms where SRA listening skill builders were used, the aide generally was responsible for reading the text aloud before the children responded to questions in the pupil work booklets.

Painting Center

Every classroom had one double easel and a generous supply of tempera paints, brushes, and paper. On a rotating basis, each child was given the opportunity to make use of the center. Although no one was required to, children frequently used the painting center to illustrate stories they had written or dictated. A popular activity was to staple t e pupil's story which had been typewritten by the pupil or the aide to the child's picture, and to place the work on display somewhere in the classroom.

Games Center

A wide assortment of games for practicing word recognition skills was available in this center. Children were free to use these materials when they were not participating directly with the teacher or scheduled to work in the listening-viewing center.

APPENDIX B

OBSERVATION GUIDE

DATE _____ CENTER _____

TIME _____ TEACHER _____

OBSERVER _____

	No. of Pupils	Materials	Activity	Management
Speaking				
Listening				
Reading				
Writing				
Other Forms of Expression				

Comments:

APPENDIX C

INSTRUCTIONAL MATERIALS AVAILABLE

IN EVERY CLASSROOM

Name of Material	Publisher's Code
Basal Reading Series	
The Ginn Basic Readers (100 Edition)	Ginn*
The Harper and Row Basic Reading Program	HR
The New Basic Readers	SF
The Open Highways Series	
The Sheldon Basic Reading Series (Centennial Edition)	AB
Filmstrips	
American Legendary Heroes	EnC
Chains of Slavery	
Pet Stories	
Quest for Equality	
Walt Disney Animal Stories	
Walt Disney Adventure Series	
Walt Disney Fantasy Stories	
Walt Disney Make-Believe Stories	
Walt Disney Stories of Yesterday	
Walt Disney Action Stories	
Filmstrips and Records	
Walt Disney Tales of Jiminy Cricket Set I and Set II	EnC
Classic Fairy Tales	EnC

*See Appendix D for the key to the publisher's code

Filmstrips and Records (Cont'd)

Reading Incentive Classroom Kits Custom Cars Drag Racing-Funny Cars Dune Buggies Minibikes	BR

Kits and Packaged Materials

Dolch Teaching Aids Consonant Lotto Vowel Lotto The Syllable Game Picture Readiness Game Basic Sight Cards Sight Phrase Cards Picture Word Cards	GP
Phonics We Use Learning Games Kit	LC
Pilot Library	SRA
Reading for Understanding	SRA
Spelling Learning Games Kits (A,B,C)	LC
SRA Reading Labs I C II A II C	SRA

Records and Tapes

Listen and Read Set LR-GH 1 Album 1	EDL
Listen and Think Sets LT-AR LT-B LT-C LT-D LT-E	EDL
The Time Machine Series	FOL

Workbooks

The MacMillan Reading Spectrum	MAC
Phonics Skilltexts	CEM
Phonics We Use	LC
The Reading Skill Builders	RDS
Specific Skill Series Using the Context Getting the Facts Following Directions Locating the Answer Working with Sounds	BL

APPENDIX D

KEY TO PUBLISHER'S CODE

AB	Allyn and Bacon Rockleigh, New Jersey 07647
BL	Barnell Loft Ltd 111 South Centre Avenue Rockville Centre, New York 11571
BR	Bowman 622 Rodier Driver Glendale, California 91201
CEM	Charles E. Merrill Publishing Company 1300 Alum Creek Drive Columbus, Ohio 43216
EDL	Educational Developmental Laboratories Huntington, New York 11746
EnC	Encyclopedia Brittanica Press 425 North Michigan Avenue Chicago, Illinois 60611
FOL	Follett Publishing Company 1010 West Washington Blvd Chicago, Illinois 60607
GP	The Garrard Press Champaign, Illinois 61820
Ginn	Ginn & Company 72 Fifth Avenue New York, New York 10011
HR	Harper and Row, Publishers 10 East 53rd Street New York, New York 10022

LC Lyons E. Carnahan Educational Publishers
Affiliate of Meredith Publishing Company
407 East 25th Street
Chicago, Illinois 60616

MAC The Macmillan Company
Front & Brown Streets
Riverside, New Jersey 08076

RDS Reader's Digest Services, Inc.
Pleasantville, New York 10570

SF Scott Foresman & Company
433 East Erie Street
Chicago, Illinois 60611

SRA Science Research Associates, Inc.
259 East Erie Street
Chicago, Illinois 60611

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