This collection of abstracts is part of a continuing series providing information on recent doctoral dissertations. The 24 titles deal with a variety of topics, including the following: the relationship between home environment and reading achievement in Puerto Rican pupils; the relationship between magical thinking and reading skills in emotionally disturbed children; characteristics of achieving and nonachieving students in a Title I reading program and in a preschool reading program; personalized educational prescriptions employing analysis of educational cognitive styles; differences in cognitive style and visual motor ability in poor, average, and good readers; development of logical thought in adolescents with reading retardation; the relationships between reading achievement and social interaction, geographic isolation, and children's developmental stage; nonintellectual factors in achievement of black disadvantaged male students; metalinguistic awareness and reading strategies in proficient and learning disabled readers; linguistic aspects of word recognition by adolescents; reading disabilities of disadvantaged students; factors affecting reading comprehension scores of deaf children; and predictor variables for first grade reading achievement. (GU)
Reading Achievement: Characteristics Associated with Success and Failure:

Abstracts of Doctoral Dissertations Published in Dissertation Abstracts International, July through September 1977 (Vol. 38 Nos. 1 through 3)

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Sears, Carol Joyce
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Serwatka, Thomas Stephen
NONVERBAL PREDICTORS OF READING ACHIEVEMENT IN HEARING IMPAIRED CHILDREN

Spence, Mary Kaneaster
COMPARISON OF PIAGETIAN TASK PERFORMANCE BY PRIMARY CHILDREN AND READING ACHIEVEMENT, CULTURAL BACKGROUND, SOCIO-ECONOMIC STATUS, AND RECEPITIVE LANGUAGE AGE
SELECTED FACTORS IN HOME, ENVIRONMENT AND PUERTO RICAN FOURTH GRADE PUPILS' READING ACHIEVEMENT

ALVIRA—BENITEZ, Sigfredo, Ed.D.
Temple University, 1977

I. Type: Descriptive

II. Problem: Investigate significant relationships between sex, reading achievement of fourth graders and one or more of the home environmental variables—home living environment, socioeconomic status, educational background of parents, language used at home, reading activities, and parent-child reading interaction.

III. Research Question: Are there significant relationships between sex, reading achievement of fourth graders and one or more of the home environmental variables—home living environment, socioeconomic status, educational background of parents, language used at home, reading activities, and parent-child reading interaction?


V. Statistical Analysis Used: A. Multiple regression analysis. B. Significant differences—hypothesized at 05 level.

VI. Findings: A. There was no significant relationship between sex, reading achievement and these home environmental variables. B. Home living environment. C. Socioeconomic status. D. Educational background of parents. E. Language used at home. F. Reading activities. G. Parent-child reading interaction.


VIII. Implications: A. For application: 1. School should establish programs in which teachers and community leaders work on how to a. make adequate use of appropriate T.V. programs. b. Provide parental and children reading activities. c. Select appropriate T.V. programs, specifically, educational. d. Maintain a good appearance of the home. e. Make adequate provisions for the number of family members living in the same home. 2. School should provide consultation services on the mentioned aspects. 3. Provision of fire and in-service training for educators, not only those specialized in reading, but all who are involved in the teaching learning situation, to make them aware of the home environmental factors influencing a child's reading achievement. 4. Use environmental factors identified in this study to determine their relationships with reading achievement among junior high or senior high school students in a low socio-economic area. 5. Determine whether or not the same home environmental factors identified here have any relationship with reading achievement among children of varying socioeconomic status. 6. Identify other environmental factors which influence upon non-reading achievements. 7. Investigate the relationship of home environmental factors with reading achievement among children of varying socioeconomic status. 8. Test the hypothesis that the five independent variables have value for the classroom teacher, in separating out perceptual and cognitive development that correlate significantly with silent reading comprehension, and that students can then obtain beneficial instruction in conjunction with formal reading comprehension lessons.

IX. Conclusion: A. The five independent variables are not difficult to administer and score, and are of value for the classroom teacher, but they do require individual administration in a quiet, nondisturbing atmosphere.

FIELD DEPENDENCE—INDEPENDENCE, MEMORY; LOGICAL THINKING TASKS, AND EFFICIENCY IN READING COMPREHENSION

Baker, Elizabeth Cote, Ed.D.
Memphis State University, 1976

Utilizing the perception and cognitive developmental theories of Witiik, Piaget, and Nemkirk, this study attempted to determine correlations between measures of field dependence-independence, visual memory for pictures, perceptual-multiplicative classification matrices, verbal transitive inferential logic and reading comprehension. Since sex, race and parental occupations have been shown to correlate significantly with reading comprehension, an ancillary problem was to determine the effects of these demographic variables upon the predictive value of the measures of field dependence-independence, memory, and logical thinking when predicting reading comprehension. Basically, two questions were raised: 1. Do selected perceptual and logical thought processes correlate with efficient reading comprehension for fourth grade students? 2. Are selected demographic, perceptual, memory and logical thought variables efficient predictors of reading comprehension for first and fourth grade students?

Seventy-one first grade students and ninety-four fourth grade students, evenly divided by race, sex and professional-nonprofessional parental occupations, enrolled in a public school system, Tennessee, composed the population for this study. Data was gathered in two individual testing sessions with each of the students. Pearson correlation coefficients were calculated for the demographic variables, the five independent variables, and reading comprehension to test the first question. Those that were significant at the p < .05 level were accepted. A stepwise multiple regression analysis was used to answer the second question.

The statistical findings allowed several conclusions to be drawn: 1. There appear to be significant correlations between field dependence-independence, ability to generate permutations, multiplicative classification matrices, solutions and silent reading comprehension for first grade students. 2. There appear to be significant correlations between field dependence-independence, ability to generate permutations, visual memory for pictures, multiplicative classification matrices, solutions, verbal transitive inferential logic and silent reading comprehension for fourth grade students. 3. There appears to be evidence that for fourth grade students the demographic and independent variables did not correlate significantly with the prediction of silent reading comprehension. 4. There did not appear to be evidence that for first-grade students the demographic and independent variables contributed significantly to the prediction of silent reading comprehension. 5. There was no evidence indicating that the demographic variables of sex, race and parental occupational status contributed significantly to the prediction of silent reading comprehension.
**READING READINESS SKILLS IN JANUARY KINDERGARTEN PUPILS RELATED TO READING SUCCESS IN DECEMBER OF FIRST-GRADE**

BARRY, Judith Frances, Ed.D.
Boston University School of Education, 1977

Major Professor: Dr. Thomas E. Clanton, Jr.

**Problem:** The purpose of this study was to make an extensive inventory of certain auditory, visual, language and motor perceptual background abilities of January kindergarten pupils, and to discover relationships among these perceptual abilities as they relate to success in beginning reading in December of first grade.

1. The importance of such background factors as chronological age, sex differences, differences in intelligence, learning rate, birth order, and the amount of time spent viewing educational television were also investigated.

The focus of this study was to measure and identify the predictive success variables.

**Procedure:** To obtain statistical information, a total of seventeen testing measures, six standardized, and eleven informal measures were administered to 563 January kindergarten pupils. Three of the measures were individual tests. The follow-up first grade testing program administered to 409 children consisted of one standardized test, the Durrell Listening - Reading Test, an informal vocabulary inventory and the child's reading group placement by the first grade teacher.

Each of the seventeen measures administered to the 563 kindergarten children is listed in rank order of difficulty from the easiest to the most difficult item. These tables which describe the number of children able to recognize each letter name and each phoneme should be helpful to the early childhood educational practitioner in planning and developing educational materials for kindergarten and first grade.

2. Findings: The inquiry about the letter knowledge abilities possessed by January kindergarten children yielded the following conclusions:
   1. January kindergarten children are well beyond the picture and shape matching visual discrimination tasks and are ready for meaningful practice with letters as evidenced by a mean number of capital and lower case letters matched.
   2. January kindergarten children have excellent visual memory for letters as evidenced by the fact that 94 percent of the population tested was able to match 22 or more capital letters correctly; 88 percent of the population tested was able to match 22 or more lower-case letters correctly.
   3. That many children bring to kindergarten an interest in and ability in letter name knowledge is demonstrated by the mean score of 23 capital letters and 21 lower-case letters on the test of identification of capital and lower-case letters after a flash stimulus.
   4. A comparison with two previous studies, both of which were conducted in September of first grade on letter knowledge abilities, found January kindergarten children to be further advanced in the identification of capital and lower-case letters than September first graders of 1967 and 1967. This study found a definite hierarchy of letter knowledge skills to exist which from the easiest to the most difficult were the following: matching of capital letters, matching of lower-case letters, identification of capital letters after a flash stimulus and identification of lower-case letters after a flash stimulus.

3. In the introductory section of the study it was indicated that the purpose of this study was to identify those children who are performing at a level that will predict first grade reading achievement, it was found that the class-room teacher's judgment of the child's actual reading group placement in first grade had the highest correlations with background reading abilities measured in kindergarten. First grade reading group placement was found to be statistically significant at the .01 level of confidence with all kindergarten background reading abilities.

**DEVELOPMENTAL ANALYSIS OF READING ATTITUDE, LOCUS OF CONTROL, READING ACHIEVEMENT AND SCHOLASTIC APTITUDE**

BROWN, Dorothy Helen, Ph.D.
The Ohio State University, 1976

Adviser: Associate Professor Ann W. Engin

The present study was designed to investigate a series of hypotheses concerning the relationship between the various dimensions of reading attitude and locus of control. Other variables were also considered but they were not of critical importance to the study. Thus, the following four research questions were formulated for purposes of operationalizing the more global concerns of the study: (1) What is the relationship between locus of control and the following eight dimensions of reading attitudes: expressed reading difficulty, reading as direct reinforcement, reading as enjoyment, alternative learning modes, reading anxiety, oral vs. silent reading, reading group, and comics? (2) To what extent does adding information about reading attitudes improve the predictability of reading vocabulary, and reading comprehension beyond that predicted by scholastic aptitude taken alone? (3) Are the reading anxiety scores of children with a more external locus of control higher than those for children with a more internal locus of control? (4) What developmental changes occur in the basic dimensions of reading attitude from grade four through grade six?

The sample consisted of 431 intermediate grade students from three inner-city elementary schools from a large city system in central Ohio. Operationally speaking, these schools were defined as inner-city on the basis of the fact that at least one-third of the children enrolled therein came from families receiving assistance through the federal Aid for Dependent Children (AFDC) programs. The Survey of Reading Attitudes and Intellectual Achievement Responsibility Scale were administered orally to all students in class size groups but copies of the Survey and IAR were also available for the students to read while they were responding to the questions. Current data concerning reading vocabulary and comprehension were obtained from the school files.

Several stages of statistical analyses were necessary to provide tentative answers to the research questions stated above. These analyses included determining product-moment correlations, performing analyses of variance, computing coefficients of multiple correlations, and the use of graphic techniques.

Results of the study centered around the findings related to the four research questions: Correlations between locus of control and the eight dimensions of reading attitude indicated the presence of a few weak relationships, but none of the rs were of sufficient magnitude to suggest a pattern of strong relationships as was hypothesized in the introductory section of the study. That is, the present study does not substantiate a significant relationship between either the plus or minus aspects of internality and any of the eight dimensions of reading attitude.

In determining the extent to which the addition of information about reading attitudes improves the predictability of reading comprehension and vocabulary beyond that predicted by scholastic aptitude, a multiple regression subprogram was employed. Results indicate that the addition of reading attitude scores does not result in significantly greater predictability than that provided by scholastic aptitude alone. For reading comprehension, the second variable selected was the I-score from the JAR, with the Reading Anxiety variable from the SRA contributing at a significant level. However, the increment resulting from the addition of Reading Anxiety was only slight.
A small but systematic relationship was found between Reading Anxiety and both internality plus internality minus. The variance common to the two variables was small but indicated that a positive relationship existed.

Significant developmental changes were indicated for five of the eight reading attitude dimensions as children progressed from grades four through six. The change was not in the form of an increase in scores at each grade level for every dimension. The relationship in some cases proved to be too complex to be explained in the present study.

Order No. 77-107600, 114 pages.

MAJIGAL THINKING, CAUSATION AND PREDICTION: PSYCHO-LINGUISTIC IMPLICATIONS FOR READING SKILLS IN EMOTIONALLY DISTURBED CHILDREN

BURCHER, Thomas Michael, Ph.D.
Wayne State University, 1976
Major Professor: Asa Brown

This exploratory research reports the results of a systematic examination of the relationships existing between the overall level of magical thinking and reading proficiency/comprehension in emotionally disturbed children and their normal and gifted peers. Sixty-eight subjects from four populations (two experimental and two control groups) were interviewed and tested: Experimental Group A, 14 children (ages 7-9) diagnosed as emotionally disturbed, and Experimental Group B, 14 children (ages 11-13) diagnosed as emotionally disturbed, all residing at Hawthorn Center; Control Group C, 15 children (ages 7-9) assessed as gifted and attending Rooper City and Country School; and Control Group D, 25 children (ages 7-9) enrolled in regular classrooms at Neil E. Root School, L'Anse Creuse School District.

Four assessment procedures were performed with each subject: The Similarities Subtest and the Comprehension Subtest of the Wechsler Intelligence Scale for Children; The Magical Thinking Assessment developed by the researcher; and finally, the Goodman-Beutke Reading Inventory procedure.

The findings of the present exploratory research are significant and indicate a strong correlation in all subjects (r = .48, p < .01) between the child's developmental cognitive style, whether animism, artificicalism or physical determinism (Reading Predictor Scores) and his in-process reading comprehension as evidenced by the semantic and grammatical acceptability of oral reading miscues. It was found that gifted children operated in their lifespan at a more "physicalistic" level than their normal or disturbed peers. Similarly, the normal children were seen as being less internal in their interpretation of the world than the disturbed children. These three general modes of orientation in prediction were also correlated with the respective population's reading proficiency/comprehension: gifted children read more proficiently than both the normal and disturbed children; normal children read more proficiently than the disturbed children (at both age levels).

The central finding of the present study is that magical thinking and in-process reading comprehension are related in such a way that (a) more efficient (less magical) predictors are more proficient readers; and (b) less efficient (more magical) predictors are less proficient readers. This finding was significantly indicated across all study populations. One further finding was that disturbed children show a tendency to remain more magical in their interpretation of the world for a longer period of time than their normal or gifted peers.

The implications of these findings bear significant impact for the theoretical and practical applications of curriculum design for the education of all children (whether normal, gifted, or disturbed) particularly in the areas of symbolization and language information processing as prerequisites for reading. Further research is indicated for the relationships of conceptualization and prediction in early readers.

Order No. 77-9374, 216 pages.

SIMILARITIES AND DIFFERENCES BETWEEN ACHIEVING AND NON-ACHIEVING STUDENTS IN A TITLE I READING PROGRAM IN GRADES THREE AND SIX

CHILDRESS, Thomas Winston, Ph.D.
The Florida State University, 1976
Major Professor: Edwin H. Smith

The purpose of this study was to determine whether there were significant relationships between twenty-two selected factors and the reading grade equivalents of third and sixth grade disadvantaged students who are (1) achievers and (2) non-achievers, and (3) to determine whether the two achievement groups are significantly different with respect to the selected factors.

For this study, an achiever was defined as a student whose rate of learning in reading for the treatment period was greater than his/her ratio of learning before treatment. Areas investigated for relationships with student grade equivalents were: personal, family constellation, parental, housing, educational, and self-concept.

The population was composed of 203 third and 154 sixth grade students enrolled in a Title I reading program during the 1974-75 school year in an urban area in Georgia. Data for the study were collected using the Bloome Oral Reading Test, the Fiers-Harris Children's Self-Concept Scale, and a personal data sheet developed by the researcher.

Utilizing the Pearson product-moment correlation coefficient, it was determined that few significant correlations existed between the selected factors and the grade equivalents of achieving and non-achieving students at the third and sixth grade levels. When tested for differences, the two achievement groups were found to be significantly different on any factor at the third grade level. For the sixth grade, the two achievement groups were found to be significantly different on one educational factor: the non-achievers had a significantly larger number of days absent from school.

The main conclusions of the study dealing with third and sixth grade disadvantaged students were: (1) the factors investigated generally have little influence on reading achievement and (2) the achieving and non-achieving students are essentially the same population. Order No. 77-8578, 230 pages.

DEVELOPING PERSONALIZED EDUCATIONAL PRESCRIPTIONS FOR FOURTH GRADE READING GROUPS EMPLOYING ANALYSIS OF EDUCATIONAL COGNITIVE STYLES

CICCORETTI, Emil Anthony, Ed.D.
Wayne State University, 1976
Major Professor: Morrel Cline

The purpose of the study was to employ "collective educational cognitive styles" (the ways by which a particular sample of students seeks meaning or knowledge) of groups identified by performance on the Reading Test of the Michigan Educational Assessment Program for fourth grade students to provide "personalized education prescriptions" (programs that match materials to a student's style for a particular educational task) in developmental reading. The population of the study consisted of fifteen successful students and thirteen unsuccessful students, all in the fourth grade of the John N. Kantner Elementary School of the East Detroit Public Schools, East Detroit, Michigan. Successful students were those who had scored mastery on 100% of the objectives tested. Unsuccessful students were determined to be those who had failed to score mastery on 84.2% of the objectives.

The problem was to determine what collective cognitive style is attributable to successful readers; to determine what collective cognitive style is attributable to unsuccessful readers; to determine what elements of cognitive style are common to both groups; to determine what elements of cognitive style are not common to the selected groups; and to suggest instructional prescriptions for students from the unsuccessful group to be employed in their respective programs of study.

To accomplish this, each individual's educational cognitive style was mapped to determine the cognitive elements that describe how he/she seeks meaning. Data was analyzed for the successful group and unsuccessful groups separately. The data was then compared for elements common to both groups and elements unique to each group.
Elements which were common to both groups were: T(AL) - Theoretical Auditory Linguistics, T(VQ) - Theoretical Visual Qualitative, Q(CET) - Qualitative Code Ethic, Q(CEC) - Qualitative Code Esthetics, Q(CNH) - Qualitative Code Kinesthetics, Q(CFP) - Qualitative Code Proxemics, Q(CHR) - Qualitative Code Historical, Q(CKX) - Qualitative Code Kinematics, F - Family, I1 - Individuality, M - Magnitude, R - Relationship, and D - Differences.

Elements unique to the successful group were T(VL) - Theoretical Visual Linguistics, T(AQ) - Theoretical Auditory Quantitative, Q(CEM) - Qualitative Code Empathetic, Q(CS) - Qualitative Code Synesthesic, A - Associates, and L - Verbal. This would indicate that the successful group had a greater tendency to utilize visual linguistics (words), were more auditorily oriented to numbers, had greater empathy for people and events, had a greater knowledge of themselves, were more comfortable and operated more effectively in a peer setting, and relied on all three modalities of inference. The uniqueness of the unsuccessful group was a greater orientation to numbers. This would indicate a tendency to influence others to move toward goals in keeping with their own goals, an orientation important in salesmanship.

Suggestions were made for instructional prescriptions for students from the unsuccessful group. Augmentation of weaknesses in cognitive style were recommended utilizing the preferred method of searching for meaning.

Implications of the study were that (1) individualization of instruction can be implemented more effectively through knowledge of a student's educational (cognitive) style; (2) appraisal of a student's strengths and weaknesses should not be hampered to achievement. It should include cognitive style mapping.

Order No. 77-4379, 96 pages.

DIFFERENCES IN COGNITIVE STYLE AND VISUAL MOTOR ABILITY IN GROUPS OF POOR, AVERAGE, AND GOOD READERS

CONOLEY, Jill Lauren, Ph.D.
The University of Texas at Austin, 1976

Supervisor: Stephen C. Larsen

The purpose of this study was to examine the various theories that relate cognitive style and visual motor ability to reading achievement. In order to do this, differences in conceptual tempo, field dependence-independence, visual analytic conceptual style, and visual motor ability in groups of poor, average, and good readers were examined. An analysis of covariance was used to control for the effects of intelligence.

Procedures

The subjects for the study were 89 fourth-grade children whose intelligence, vision, and hearing were in the normal range. Reading achievement scores, field dependence-independence, visual analytic conceptual style, and visual motor ability were obtained for the subjects in order to divide them into groups of low, average, and high readers. The following tests were administered to each subject: the Matching Familiar Figures Test to measure conceptual tempos; the Children's Embedded Figures Test to measure field dependence-independence; the Puck Test pictures test to measure the visual analytic conceptual style; the Developmental Test of Visual Motor Integration to measure visual motor ability; and the Strong's Intelligence Test for Adults and Children to measure intelligence.

The statistical procedure employed to test the hypotheses was a one-way analysis of covariance. This procedure was chosen for its ability to control for the effects of intelligence.

The major findings of the study include the following:

1. Significant differences were found in the conceptual style of poor, average, and good readers. Differences were found in the field dependence-independence of the three reading groups. Good and average readers were found to be more field independent than poor readers.

2. Differences were found in the visual analytic conceptual style of the three reading groups. Good readers were found to be more visually analytic than average or poor readers.

3. Differences were found in the visual motor ability of the three reading groups. Good and average readers had greater visual motor ability than poor readers.

A STUDY OF THE CHARACTERISTICS OF THE FOURTH, FIFTH, AND SIXTH GRADE SUBJECTS OF TWO SCHOOL DISTRICTS WHO ARE UNDERACHIEVERS IN READING

GUTH, Patricia Snyder, Ed.D.
The University of Pennsylvania, 1976

Supervisor: Morton Botel

The purpose of this study was to evaluate the effectiveness of the reading instructional program of a school district which implemented certain practices to minimize underachievement in reading. To accomplish this, the extent of underachievement in reading of the subjects of a model school district was compared to the extent of underachievement in reading of the subjects of a comparison school district. Also investigated was the relationship of reading achievement and underachievement to selected characteristics which are sometimes associated with underachievement in reading.

The school districts selected for the study were similar in geographic location, socioeconomic conditions, ethnic composition of the population, and the potential for the support of public education. The two school districts differed with respect to the following aspects of their educational programs: (1) defined supervisory practices, (2) use of reading instructional levels for the assignment of pupils into classes, (3) integration of the reading and language arts instructional program, (4) procedures for the assessment of pupils' reading progress, (5) special reading instructional program for pupils reading difficulties, (6) integration of library books into the reading instructional program, (7) special service personnel to aid with pupils with learning problems, and (8) an in-service educational program aimed at the improvement of reading instruction.

The subjects of the study were those pupils who were enrolled in each school district since kindergarten at the beginning of first grade.

The Peabody Picture Vocabulary Test was administered to each subject to assess his verbal capacity, and his reading achievement was determined through the Word Meaning and Paragraph Meaning Subtests of the Stanford Achievement Test. Both as the characteristics of the underachievers and the random sample of achievers were: (1) Sex Differences, (2) Intelligence, (3) Reading Achievement, (4) Reading Instructional Levels, (5) Spelling Achievement, (6) Composition Skills, (7) Quality of Handwriting, (8) Handedness, (9) Entrance Age, (10) Kindergarten Attendance, (11) Readings for Reading Instruction, and (12) Non-Promotion. These characteristics were measured through normative and criterion referenced tests or were secured from the scholastic records. The data was statistically analyzed using the critical ratio, t test, and chi square.

A comparison of the subjects from the two school districts indicated no significant differences between the proportion of males in each grade, chronological age of the subjects, and the proportions of subjects who scored in the first and second stanines of the reading achievement test. For grades four and above, the intelligence of the subjects from School District A was significantly greater than that of the subjects from School District B. In grade five, the reading achievement of the subjects from School District B was significantly greater than that of the subjects from School District A. The proportion of subjects from School District A whose reading instructional levels was significantly greater than the proportion from School District B.

Davis's method of estimating the true underachievement was used to identify those subjects whose underachievement in both Word Meaning and Paragraph Meaning was significant at the five and ten percent levels of confidence.

Order No. 77-11,492, 105 pages.
The hypothesis that there was no significant difference between the incidence of underachievement in reading of the subjects of grades four, five, and six of the two school districts was rejected for the underachievers selected at both the five and ten percent levels of confidence. The following hypotheses were accepted concerning the underachievers identified at the ten percent level of confidence: 1. There was no significant difference between the selected characteristics of the underachievers in reading from the two school districts. 2. There was no significant difference between the selected characteristics of the achievers and underachievers in all grades of each school district with one exception. In School District A, the proportion of underachievers whose reading instructional levels were below grade placement was significantly greater than the proportion of achievers.

The following conclusions seem warranted from the findings of the study: 1. It is possible to design a reading instructional program to minimize underachievement in reading. 2. No significant differences were found between the selected characteristics of the underachievers in the model school district, and the comparison school district. 3. Significant differences were not found in the selected characteristics of the achievers and underachievers in reading in each grade of both school districts. 4. Mean scores on both concrete and formal tasks increased with grade level. All sixty subjects conserved liquid volume; the chemicals task was more difficult and the total group was met by only the higher and twelfth grade students. 5. There was no statistically significant differences in reading achievement scores among the three groups of students divided in accordance with degree of social interaction using chronological age of the student as a covariant.

To achieve the purpose of the investigation five null hypotheses were tested. The reading achievement score refers to the total reading score. From this raw score, grade level equivalents were used. The hypotheses that were tested are as follows: 1. There were no statistically significant differences in reading achievement among the three groups of pupils rated on social interaction. 2. There were no statistically significant differences in reading achievement scores among the three groups of students divided in accordance with degree of social interaction using chronological age of the student as a covariant. 3. There were no statistically significant differences in reading achievement scores among three groups of students divided in accordance with degree of social interaction using sex as a covariant. 4. There were no statistically significant differences in reading achievement scores among three groups of students divided in accordance with degree of social interaction using socioeconomic level of the family as a covariant. 5. There were no statistically significant differences in reading achievement scores among three groups of students divided in accordance with degree of social interaction using intelligence as a covariant.

The second grade students from BUI Arp Elementary School in Douglas County, Georgia, were selected as subjects for this study. This consisted of 169 students in the third and fourth grades. The teacher of the students employed the Child's Behavior Checklist in order to place each student into one of three categories divided in degree of social interaction: (1) high socially interactive, (2) average socially interactive, or (3) low socially interactive.

To measure reading achievement, the researcher used the BRA Achievement Series, Primary I, Form E. Reading section. The raw score of this test was converted to a grade-level equivalent score. The California Short Form Test of Mental Maturity, 1963 Revision, Level I, was administered in order to obtain an IQ score for each subject.

The T-value Index of Social Position was selected to determine the socioeconomic level of each subject's family. Information necessary for classifying students according to this instrument was obtained from school records. Date of birth and sex of each student was also obtained from school records.

Several techniques were used to analyze the data. An analysis of variance was used to test hypothesis one. Analysis of covariance was used to test hypotheses two through five. The Duncan Multiple Range Test was also used to test hypotheses two through five. The .05 level of significance was selected as the alpha level to indicate significant differences in testing the hypotheses.

The statistical analyses produced significant results at the .05 level for all five of the tested hypotheses. Therefore, all of the hypotheses were rejected.

The results of this study showed that there is a significant relationship between reading achievement scores and specific levels of social interaction.
EXAMINATION OF NON-INTELLECTUAL FACTORS IN ACHIEVEMENT OF BLACK DISADVANTAGED MALES

HILL, Alfred Wayne, Ph.D.
Kent State University, 1976

Director: John Guidubaldi

Although the concept "disadvantaged child" was conceived as a means of identifying the potentially debilitating effects of environmental deprivation on the psychological and educational development of children, it has too often taken on a global connotation. That is, many people have tended to equate a homogenous group encompassing all lower-class and often minority youngsters who are caught up in the web of failure. The third socioeconomic level of these 77 schools. In contrast, with the exception of economic categories, there are some variations in how this group is defined. In addition, little is known about the psychological impact of "being poor" on different children. Thus, by being the disadvantaged as a homogeneous group, their individuality and uniqueness is ignored.

Although academic attainment occurs quite frequently with disadvantaged youngsters, we have no objective data to explain why some disadvantaged succeed and others fail. Before schools can devise successful programs for dealing with these youngsters, more research needs to be done in order to ascertain which factors, do indeed, enhance or inhibit their academic success.

One of the main aspects of this study was to compare selected home, identified as peer variables of fourth, fifth, and sixth grade disadvantaged black males with their reading achievement scores to determine which have a significant relationship to the disadvantaged child's school success.

Another phase of this study was to measure the amount of congruence in the attitudes of those "significant others" in the child's life, viz., his teachers, parents, and his peers as they respond to questions about non-academic factors such as black pride, racial preferences, achievement orientation, self-concept, and age-role identification.

The subjects for this study consisted of a sample of 50 fourth, fifth, and sixth grade boys from Cleveland's 77 elementary Title I (JESEA) schools. With the exception of five subjects all subjects were in schools ranked within the lowest one-third socioeconomic level of these 77 schools. In addition to obtaining information from the 50 subjects in this study, information was obtained from the boys' teachers and parents and from a selected peer group.

In order to measure whether or not the selected variables were related to school success and whether congruence existed among subjects and their "significant others" the following instruments were used: 1. Devereux Elementary School Behavior Rating Scale 2. Self-Concept Semantic Differential Scale 3. Questions on black pride 4. Questionnaire on racial preferences 5. Sex-role Identification Q-sort 6. Rating scale on achievement orientation.

The data of this investigation suggest that educational expectations for the disadvantaged should not be based on knowledge of demographic information about the family. If this information is allowed to color teacher expectations, they will surely misdiagnose and miseducate some of the very pupils who most need their help.

Information from this study also suggests that the child's behavior pattern and attitude toward achievement orientation can indicate how children will do in school. The information also suggests that achieving students conform to demands of the school and expectations of teachers. Closely allied to this position is the finding that achievers tend to adopt teachers' "mothers' attitudes toward achievement." If these assumptions are found to be true, it suggests the need to begin to devise activities designed to change proper behavior and corrective attitudes toward achievement.

Other data from this investigation suggest that not only do mothers' expectations tend to be higher for achievers, but achieving children also seem to have a clearer understanding of what their mothers expect of them.

In summary, this investigation concludes that disadvantaged youngsters who achieve better in school 1. Their mothers have higher expectations for toward achievement and it is shared by their children. 2. Their mothers have high expectations for them and these expectations are communicated to and shared by their children. 3. Their behaviors are in harmony with the demands of their teachers and the school.

Order No. 78-29,528, 86 pages.

A STUDY OF METALINGUISTIC AWARENESS AND READING STRATEGIES IN PROFICIENT AND LEARNING DISABLED READERS

HUGO, Pamela Evans, Ph.D.
Northwestern University, 1976

The purpose of the study was to explore the relationship between oral reading achievement, conscious awareness of oral language (metalinguistic awareness) and word attack strategies in 14 learning disabled readers and 12 proficient readers. The learning disabled readers were at least one year below grade level and the proficient readers were at or above grade level on test of spelling and oral reading of single words and words in context. All of the children were nine and ten year old boys, half C ranging from 95 to 125 and came from middle to upper middle class homes where standard English was spoken.

Experimental groups were given to measure the development of metalinguistic awareness in inferring, phonology and grammar. Specific reading error analyses were used to determine the application of intonation, phonics and grammatical relationships as word attack strategies in oral reading.

Results of the study confirmed the hypothesis that learning disabled readers have more difficulty developing metalinguistic awareness than proficient readers. The differences were significant in all three categories: intonation, phonology and grammar. There appeared to be a progression in the development of metalinguistic awareness from recognition to application and it was apparent that more metalinguistic awareness is necessary to process information containing nonsense words than real words. The learning disabled readers also appeared to have a weakened syntactic base causing specific difficulty with forming irregular past tenses, plurals and pronouns in oral language.

Differences were found between the groups on the use of phonics and grammatical relationships confirming the hypothesis that learning disabled children have more difficulty than proficient readers systematically applying word attack strategies in their oral reading. The most significant discriminator between the groups was a subtest requiring metalinguistic awareness of phonology which measured the child's ability to manipulate sounds in real words. The second best discriminating was the ability to apply phonics and word attack skills. The predictive power of these two significant variables combined with the other tasks included in the analysis was quite strong (100 percent of the members of both groups were accurately discriminated).

The most significant predictor for oral reading of both single words and paragraphs was the ability to apply phonics. It appears that proficient readers are able to use all cognitive systems (grapho-phonemic, syntactic and semantic) equally but the use of grapho-phonemic is the best predictor of oral reading achievement in nine and ten year olds. The second best predictor of reading of single words was the ability to manipulate sounds in real words. The second best predictor of reading of single words was the ability to manipulate sounds in real words. The second best predictor of reading of single words was the ability to manipulate sounds in real words.

The hypothesis suggesting a relationship between performance on the metalinguistic awareness tasks and the use of strategies for word attack in oral reading was also confirmed.

The possibility of a generalized difficulty in the abstraction and application of rules underlying both the difficulties in oral language and those in reading was discussed.

Implications of the study for future research, diagnosis and remediation were presented. Suggestions were made in structuring the test battery and for remediation based on the diagnostic results. It was emphasized that work on phonics as well as training in the use of language based cues is essential.

Order No. 77-10,037, 187 pages.
DIDACTIC ASPECTS OF WORD RECOGNITION BY ADOLESCENTS

KEHOE, William J., Ph.D.
The University of Rochester, 1976.

One of the critical areas in the study of reading difficulties of school children involves the question of whether serious comprehensibility problems relate to students at the word level, or a higher level of analysis. On one side of the question are researchers like Gough, Shankweiler, and Liberman, who say that poor reading of connected text, with low comprehension, is a consequence of reading words poorly. Other equally competent scholars, such as Smith, Koles, and Goodman, suggest that many students, particularly at higher grade levels, have few serious problems with individual word recognition, but fail to comprehend what they read because of the structural complexities of the sentences, or larger constructs, which they encounter in reading.

The study described in this paper was designed to test this question. The word recognition behavior of 50 high school students two or more grade levels below their age mates in tests of reading comprehension is contrasted with that of 25 controls from the same schools who are 'reading age level' or reading 'grade level'. The student group is divided by the pictures flashed, like the words, at 1/100 of a second, were to be identified in a short sentence. This latter subtest was added to explore the relationship of word perceptual difficulties to broader visual perceptual problems identified by many researchers as a major cause of poor reading.

The results indicate that virtually all of the adolescents with low reading comprehension scores also had difficulty reading individual words presented at short flash durations, none of the controls encountered similar difficulty. Moreover, there were no significant differences in the recognition of pictures between the two groups. In fact, the five students identified by their schools as having 'visual perceptual problems' perceived pictures significantly better than either the controls or the remainder of the test group.

Regression equations set up to 'predict' the difficulty of the test items according to the loading of factors such as length, frequency, concreteness, and pleasantness, showed these factors to be good predictors for the test subjects' errors only. The errors of the controls did not vary significantly along these parameters. Later analysis of the data showed that additional factors such as word stress pattern, grammatical category, and morphological and derivational complexity clearly affected the recognition success of the test subjects, but not the controls.

Among 192 errors of the test subjects in the word recognition part of the test is contrasted with a similar analysis of the 48 errors of the controls. A subset of the 21 error classes identified is shown to be a qualitative, as well as quantitative, difference between the two groups, since these errors do not occur to occur among the control subjects. It is suggested that a test of this type be explored as a potentially useful screening instrument for identifying students in need of very specialized, one to one, remedial assistance.

The relationship of this study to others, particularly to those involving broader language problems, is discussed. Implications for further research, related areas of needed study, and probable impediments to this work are also suggested in the final chapter.

Order No. 76-24,008, 130 pages.

A STUDY OF THE RELATIONSHIP OF READING ACHIEVEMENT TO GEOGRAPHIC ISOLATION AND SELECTED BACKGROUND VARIABLES

KEY, LeRoy Frank, Ph.D.
University of Oregon, 1976

Adviser: Mildred C. Roben

The purpose of this study was to determine the extent to which schooling in a geographically isolated area affected the reading achievement of white, middle class students. Two concomitant aims of the study were: (1) to determine the extent to which students enrolled in an isolated island school district for a considerable length of time were affected on achievement measures as compared to students enrolled in the school district for a shorter period of time, and (2) to determine the extent to which selected student-perceived environmental factors appeared to relate to the reading achievement scores of those students affected by geographic isolation for limited versus extended time periods.

The two samples selected for this study were composed of all students enrolled in grades 6 through 12 in the island school district. Students who either dropped out or registered in school during the course of the study — Fall of 1975 through Spring of 1976, were not involved. The samples were labeled short-term and long-term students. Pupil personal-files established whether a student would be labeled short-term (enrolled in the island schools less than 7 years) or long-term (enrolled in the island school 7 years or more).

Certain personal data which was subsequently used to establish the sex and grade level of students were collected from both long and short-term groups. Both groups were administered The Comprehensive Tests of Basic Skills during the Spring of 1976. The data collected were broken into three reading achievement components: (a) vocabulary, (b) comprehension, and (c) total scores.

A student-developed questionnaire dealing with student perceptions of the environmental factors of (1) self-image, (2) communication in the home, (3) parental support, (4) attitude toward parent, (5) attitude toward the school, (6) attitude toward the teacher, and (7) attitude toward family life was also administered to both groups.

The major hypotheses, concerning the effect of geographic isolation on reading achievement, were developed and subsequently tested statistically using the "t" test for the difference between means. Fourteen research questions were also developed in order to generate data concerning the seven factors identified and perceived by students. The research questions were tested statistically on a "Chi-square" test of independence.

Major Findings

With the alpha level established at .05, the following findings were revealed: 1. The student group enrolled in a geographically isolated school less than 7 years scored significantly higher on the reading sub-sections of the CTBS than the student group enrolled for 7 years or more. 2. The male short-term student group scored significantly higher on the reading sub-sections of the CTBS than the long-term male student group. This tendency appeared for female groups, although the results were below the limits set for significance in this study. 3. The frequency of positive responses was found to be significantly higher on the student-perceived environmental factors of: self-image, attitude toward school, parental support, and communication in the home. These findings correspond with the significantly higher reading scores of short-term students on the CTBS. 4. The frequency of positive responses was found to be significantly higher for short-term males on: self-image, attitude toward school and communication in the home, and also for short-term females on: self-image and parental support as compared with long-term male and female groups respectively. These findings correspond with the higher mean reading scores of short-term male and female groups on the CTBS.

Related research questions concerning the frequency of positive attitudes toward parents, teachers, and family life did not produce significant results, although the trends were consistent, without exception, with the major findings.

Finally, it appears that the over-all hypotheses concerning the significant effect of environmental factors on student achievement levels is confirmed in this study.

Order No. 77-13,197, 170 pages.
A STUDY OF THE READING DISABILITIES OF ECONOMICALLY DISADVANTAGED STUDENTS IN ELEMENTARY GRADES

NARDO, Nita Lawson, Ed D.  
The University of Tennessee, 1976

Major Professor: Dr Charles Achilles

This investigation was designed as an ex post facto field study of 153 subjects, from economically disadvantaged communities in an urban school district who had been unable to progress at a satisfactory level in a Title I remedial reading program which had been successful with large numbers of elementary school students whose environmental backgrounds were similar to those of the subjects. The study was undertaken to provide a base of information for Title I programs planning for the development of more effective instructional treatment for economically disadvantaged children with reading problems. Information already available in school records was consolidated with new data collected in the course of the investigation and analyzed by statistical and mathematical techniques.

The research design was based on eight open-ended questions, three of which were addressed to the identification of reading disabilities on a standardized test, five of which were concerned with the identification of factors in the reading disabilities relative to mental ability, language functioning, auditory functioning, visual functioning, and motor functioning.

Findings about the characteristics of the subjects were in general agreement with those of others who have studied economically disadvantaged children with reading disabilities. In this study it was found that, while reading difficulties occurred in all elementary grades and at all ages (seven through 18), the highest percentages were found in grade five, among young students who were nine and 10 years old. More males than females (at least twice the proportion) failed to progress in reading, with the most common cause being reading difficulties. The most common family configuration was that of parents either not present or separated, no father in the home, and the subject living with mother or grandmother who were either unemployed or on public welfare.

In all categories of race and sex, the most common position of students was that of middle child. Relative stability was supported by the number of schools attended. Lack of preschool experience and high absenteeism were highly characteristic.

The University of Tennessee, 1978

CALLY, DISADVANTAGED STUDENTS IN ELEMENTARY GRADES

NGANDU, Kathleen Moore, Ph.D.  
University of Illinois at Urbana-Champaign, 1976

PURPOSE

The purpose of this study was to examine reading behaviors reported by sophomores in high school remedial classes in an attempt to identify what they did as they read. Rather than present a theoretical design of what these readers do or should do as they read, this study provided an account of the actual behaviors they used while reading certain materials for an assigned purpose. This account, along with the categorization scheme developed to identify these individual behaviors, may provide teachers with an alternative method of diagnosing and remediation of reading disabilities.

PROCEDURES

The sample selected as representative of this group of readers was eight students enrolled in the research remedial reading classes. The case study approach involved the use of the students reading various short stories and factual articles during a full semester for the following three purposes: details recall, statement of the main idea, or enjoyment. After silently reading a selection, students either completed a details recall quiz, wrote the main idea, or ranked their enjoyment of the selection. Finally, the teacher asked students what they did while reading or how they read. Students' retrospective responses were transcribed on a tape recorder for later content analysis.

MAJOR FINDINGS

1. Each student reported a definite behavior pattern when reading the various selection types 2. Students generally showed greater similarity in behavior when reading the same type of material as compared to the same type of material as when reading different material. 3. In almost all cases students differed on plot, character, and theme. Differences were significant in the following three purposes: details recall, statement of the main idea, and enjoyment. 4. Students did somewhat better when writing the main idea of short stories as compared to the same type of material as when reading factual articles. 5. Usually students preferred reading short stories rather than factual articles. 6. In almost all cases when a student reported...
the hindering behaviors of not paying attention or experiencing an overall negative reaction about a selection type, the scores scored lower on the details recall quizzes, did not grade acceptable main ideas, or ranked the selection type low on the enjoyment scale. 7. Students generally reported a greater number of different reading behaviors for the material types that they preferred, or that they comprehended better. In most cases this was because of the main idea, in almost all cases students read the short stories faster. 11. When a short story and a factual article were both read for enjoyment, students generally read the factual article faster. 12. Short stories read for enjoyment were almost always read slower than short stories read for details recall or statement of the main idea.

CONCLUSIONS

1. This study supported the belief that reading is a complex activity, as the behaviors categorization scheme identified 45 different behaviors. 2. Students recognized what they did while reading and seemed to know the influence these behaviors had on their reading abilities. 3. Students exhibited individual patterns of behavior responses. 4. Students generally reported using a greater number of different behaviors while reading the material type with which they had the most success (higher scores). 5. Narrative materials were generally read with better comprehension or with greater enjoyment than the expository materials were. 6. The interest level of materials seemed to have a great effect on how students read. 7. The reading behaviors categorization scheme was a satisfactory instrument to classify students' responses.

THE INFLUENCE OF THE STRUCTURAL MODE OF WRITTEN MATERIAL ON THE COMPREHENSION SCORES OF DEAF AND HEARING CHILDREN AT THE SECOND AND FOURTH GRADE READING LEVEL

OSGOOD, Joan Studek, Ed.D.
University of Illinois at Urbana-Champaign, 1976

"It was the intent of this experiment to investigate the influence of structural mode of written material on the comprehension scores of deaf and hearing children at the second and fourth grade reading levels. By presenting the written material in three different structural modes, it could be determined if the reading process was facilitated by the structure of the material. The structural modes that were utilized were conventional spacing, phrasing, and anti-phrasing. In conventional spacing, the spaces between words followed the conventional form of written material. In phrasing, the material was broken down according to the constituent analysis of phrase structure, with large breaks occurring at major phrase structure boundaries. In anti-phrasing, the material was broken down randomly with the breaks occurring anywhere in the sentence.

The phrase structures of a sentence are the constituents that make up that sentence. It has been established with hearing subjects that phrase structures influence the processing of verbal material but it is not clear if deaf subjects are influenced by this. If meaningful verbal material tends to be coded into chunks or phrases by a reader then efficiency of reading might be improved if the reading material was preorganized into phrase structures. A comparison of deaf and hearing subjects as well as a comparison of second and fourth grade readers was made to see what effects the structural modes have. The following subjects were used: 1) 24 deaf children, 10 to 14 years of age, reading at the second grade level, 2) 24 deaf children, 14 to 18 years of age, reading at the fourth grade level, 3) 24 hearing children reading at the second grade level, and 4) 24 hearing children reading at the fourth grade level. All of the children's reading levels were measured by the Stanford Reading Achievement Test. The deaf subjects also met the following criteria: 1) no other handicapping conditions, 2) deafness at birth or before 18 months, and 3) not less than a 90 dB(ISO) hearing loss in the better ear. The hearing subjects were to have no handicapping conditions and were to be enrolled in the second or fourth grade for the first time.

Each child read three different stories at the second grade level. Each story was read in a different structual mode. After reading each story behavior was recorded written comprehension questions. The fourth grade readers also read the different stories written at that level. Each story also was typed in a different structural mode and comprehension questions followed.

The analysis for the study employed a 2 x 2 x 3 analysis of variance on the factors physical level of hearing, grade, and structural mode of presentation for the second grade material. Physical level of hearing, grade, and mode comprised the independent variables and the comprehension scores obtained on each story was the dependent variable. A 2 x 3 analysis of variance on the factors physical level of hearing and structural mode of presentation was employed for the fourth grade material. Physical level of hearing and structural mode of presentation comprised the independent variables and the comprehension score obtained on each story was the dependent variable. The analysis for both levels of materials detected no significant differences which involved the structural mode of presentation. The only significant difference of interest was detected among stories.

Order No. 77-9120, 188 pages.

AN ANALYSIS OF THE SYNTACTIC DENSITY OF THE ORAL LANGUAGE OF FIRST-GRAGE CHILDREN: HOW IT AND NINE OTHER VARIABLES INTERRELATE AND PREDICT GLOBAL READING ACHIEVEMENT

PINZARI, Stephen James, Ed.D.
University of Maine, 1976

Adviser: Dodd E. Roberts

The purpose of this study was to investigate the predictability of syntactic density, mental ability, selected reading readiness factors, and learning ability for children of both sexes on first grade reading achievement measured in March, 1976.

A secondary purpose was to compare the syntactic density of the oral language of first grade children with the syntactic density of selected first grade reading textbooks.

The subjects for the experiment were first grade students from the Bangor Public Schools of Bangor, Maine. From a population of 412 children, 135 boys and 135 girls were randomly selected according to sex from all first grade classrooms in the seven first grade schools in Bangor.

The data for the measures of mental ability, reading readiness, and learning ability were collected by the kindergarten and first grade teachers in the Bangor Public Schools.

The data for the measures of syntactic density and reading achievement were collected by the researcher and three trained assistants. Measures of the syntactic density of first grade textbooks to be used for comparative purposes were collected from fourteen textbooks currently being used first grade in the Bangor Public Schools.

Reading readiness was measured by the Metropolitan Reading Readiness Test, Form A. All six subscores were administered, and a total readiness score was determined. Mental ability was measured by the Otis-Lennon Mental Ability Test, Elementary I. Learning ability was measured by the First Grade Screening Test. Syntactic density was measured by the Syntactic Density Script, a computer program. Reading achievement was measured by the Metropolitan Achievement Test in Reading, Primary I, Form G.

Six questions were proposed for investigation by this study. Stepwise multiple regression analysis and Pearson product-moment correlational analyses were utilized to analyze the data. An F-test was performed to determine adequate levels of significance of the regressions. The first question asked the extent to which syntactic density, mental ability, selected reading readiness factors, and learning ability predict first grade children's reading achievement. Selected reading readiness factors proved to be the best predictors for boys, girls, and boys and girls together. Learning ability as measured by the FGST proved to
be the next best predictor and added significantly to the read-

...predictor. Mental ability and syntactic density did not

add significantly to the prediction.

The second question asked the extent to which syntactic
density, total reading readiness, mental ability, and learning
ability predict reading achievement of first grade children.
Total reading readiness was the best predictor for boys, girls,
and boys and girls together with learning ability adding signifi-
cantly to the prediction.

The third question asked which of the language structures
measured by the SDS program appeared most frequently in
the oral language of first grade children. Prepositional phrases
appeared most frequently followed by possessive nouns and pro-
nouns and words per T-unit, respectively.

The fourth question asked whether the average syntactic
density of first grade children matched the syntactic density
of first grade reading textbooks. With one exception, the
selected first grade reading textbooks had lower syntactic den-
sity scores than first grade children.

The fifth question asked what the relationship was between
syntactic density as found in the oral language of first grade
children and selected reading readiness factors, mental ability,
and learning ability. Syntactic density was not related
meaningfully to any selected reading readiness factors, mental
ability, or learning ability.

The sixth question asked what the relationship was be-
tween the syndromes and the psycholinguistic abilities; the syndrome
of first grade children and selected reading readiness factors, mental
ability, and learning ability. Syntactic density was not related
meaningfully to any selected reading readiness factors, mental
ability, or learning ability.

The seventh question asked what the relationship was between
interest level and self-concept on the reading comprehension
scores of fourth grade boys and girls.

Interest was determined by a Reading Interest Inventory
(inventory) designed specifically for this study. Eleven cate-
gories of interests were selected, based on the research re-
garding children's interests. Children's literature was then
reviewed to select three passages appropriate to each of the
11 categories; all passages had a readability level of 5.0 to
5.6 as measured by the FRY Readability Graph. This resulted
in 33 items in the inventory consisting of a title and the first
20-30 words of each passage. The children indicated their degree
of interest in each passage by marking a five-point rating
scale.

Reading comprehension was measured through the use of
the single procedure (Taylor, 1953). The passages used were
the same as those used in the inventory. After the first 20-30 words, every fifth
word was deleted, with the exception of first words in sentences and proper nouns.
The examiner conducted two testing sessions in each class-
room. During the first session, the Piers-Harris and the in-
ventory were administered.

Subjects were then grouped into three levels of achievement
by ranking the grade equivalent scores of the ITBS or the SRA
and dividing them into tertiles. Subjects were then grouped into
each level of self-concept by ranking the scores of the Piers-Harris
and dividing them into tertiles. Subjects were also grouped by sex.
This resulted in a total of 18 groups. Then subjects were
randomly assigned to either a high- or low-interest group.

During the second testing session in each classroom, a close-
test was administered. Those children who were assigned to
the high-interest group were given a close passage from their
highest area of interest as indicated on the Inventory; those as-
signed to the low-interest group completed a close passage from
the area of their lowest interest.

Results of this study were analyzed by the unweighted means
procedure for unequal cell size. A total of 15 F tests were
computed. The main effect due to achievement was found to be
significant at the .005 level of significance. Main effects due to
interest, self-concept and sex were nonsignificant. This re-
affirms previous level of achievement as a powerful predictor
of present level of performance. The interaction between self-
concept and interest was found to be significant at the .05 level.
Results indicated that low self-concept students had a higher
mean reading comprehension score on the close test with high
interest material than with low interest material, but that high
self-concept students were not similarly affected by interest
level of the material. All other interactions were nonsignifi-
cant.

Although this study indicated that low self-concept students
were affected by interest level of the material while high self
concept students are not, more studies in the areas of self
concept and interest are needed before any definitive conclu-
sions can be drawn.

Order No. 77-3454, 147 pages.
Dissimilar patterns of significant relationships between the three syndromes and the psycholinguistic abilities in both communication channels were revealed. It was concluded that abilities in the auditory-vocal channel were most strongly influenced by substrata represented by the syndrome in praxis and abilities in the visual-motor channel were influenced by substrata from all three syndrome categories. Dissimilar patterns of significant relationships between the three syndromes and the psycholinguistic abilities on the two levels of organ level and organizational level were influenced in the same manner by the syndromes. Similar patterns of significant relationships were found between the syndromes and the visual-motor channel and the syndromes and the automatic level in the same manner by the same syndromes.

It was concluded that significant relationships do exist between specific nonverbal variables and measures of reading achievement in hearing impaired children. It was further concluded that a set of these nonverbal variables could be used to generate a predictive index for the achievement of hearing impaired children.

Implications and further conclusions were discussed.
Major Findings and Conclusions

Significance was at the .05 level or better. The frequency of significance in the hundreds of comparisons supported the following conclusions:

1. There was an association between reading achievement and the ability to function at the "concrete operational stage of development."  
2. There was no difference between Anglo-American and Mexican-American subjects when reading achievement and Piagetian task performance were compared.  
3. There was no difference between boys and girls in either cultural group when reading achievement and Piagetian task performance were compared.  
4. There was an association between receptive language age and ability to function at the "concrete operational stage of development."  
5. Anglo-American subjects with average receptive language age did perform better than Mexican-American subjects at kindergarten and first grade levels.  
6. There was an association between socio-economic level and ability to function at the "concrete operational stage of development." Subjects with high socio-economic status performed better than lower status subjects.  
7. There was no difference in the performance of boys and girls when Piagetian task performance was analyzed by socio-economic categories.  
8. An interaction was found between grade level and reading achievement levels. The number of tasks increased at each higher grade level. The rate of increase was greater for average and low readers.  
9. An interaction was found between grade level and receptive language age levels. The number of correctly performed tasks increased at each higher grade level. The rate of increase was greater for average and low receptive language age subjects.  
10. An interaction was found between grade level and socio-economic level. The number of tasks performed correctly increased with each higher socio-economic level, and increased at each higher grade level. The rate of increase was greater for average socio-economic level subjects between kindergarten and first grade.