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ABSTRACT This collection of abstracts is part of a continuing series providing information on recent doctoral dissertations. The 28 titles deal with a variety of topics, including the following: (1) a method of individually appraising the precursory skills of beginning readers; (2) the effects of instructing third grade students in interpretive reading comprehension using the basal reader; (3) selected variables related to early prediction of performance on a school district's proficiency test; (4) educational cognitive style and the assessment of reading comprehension; (5) the relative readability of ten college English handbooks with a validation of the Fry Readability Graph for levels 13 through 17; (6) the relationship between a norm referenced secondary level reading test and a criterion referenced functional literacy test; (7) the design, implementation, and evaluation of a staff development program in a comprehensive reading/communication arts curriculum; (8) using readability estimates to measure redundancy of a cloze instrument; (9) student self-tracking with microcomputer; and (10) relationships among measures of intelligence and reading achievement in young gifted children. (FL)

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THE EFFECTS OF DIAGNOSTIC/PRESCRIPTIVE READING INSTRUCTION AND TRADITIONAL BASAL READING INSTRUCTION ON THE READING ACHIEVEMENT OF THIRD AND FOURTH GRADE STUDENTS

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**THE DEVELOPMENT AND VALIDATION OF THE INFORMAL READING READINESS INVENTORY: A METHOD OF INDIVIDUALLY APPRAISING THE PRECURSORY SKILLS OF THE BEGINNING READER** Order No. 8127544

ANDERSON, CAROLYN C. Ph.D. University of Illinois at Urbana-Champaign, 1981. 157pp.

To validate the Informal Reading Readiness Inventory (IRRI), kindergarten and first grade studies were conducted in three central Illinois school districts during the 1979-1980 school year. The Kindergarten Study established that a significant mean gain ( $p < .01$ ) in scores existed when 89 students were tested in September and April with the IRRI. Concurrent validity was determined by April testing with the Metropolitan Readiness Test ( $r = .51, p < .01, n = 78$ ). An Alpha reliability coefficient of .94 ( $n = 123$ ) was calculated from fall IRRI data. Sex and ethnic difference was discovered when a two tailed test with an alpha of .20 was applied to fall data. Bias was not found to be significant on spring IRRI data.

The First Grade Study, to estimate predictive validity, correlated the IRRI with the California Achievement Test: Reading, 1970 ( $r = .47, p < .01, n = 69$ ) and the Metropolitan Achievement Test: Total Reading, 1970 ( $r = .66, p < .01, n = 73$ ). The Alpha reliability coefficient calculated on fall IRRI data was .92 ( $n = 182$ ). Sex and ethnic difference were evident when tested with alpha set at .20. Nine raters recorded student responses. The variance among raters was not statistically significant. A First Grade Test-Retest Study was conducted over a four week period in August using the same form of the IRRI. A correlation of .66 ( $p < .01, n = 40$ ) was achieved. All teachers indicated they used IRRI information to group for instruction and found the instrument to be both sensitive to detecting students' abilities and convenient to administer.

**THE EFFECTS OF DIAGNOSTIC/PRESCRIPTIVE READING INSTRUCTION AND TRADITIONAL BASAL READING INSTRUCTION ON THE READING ACHIEVEMENT OF THIRD AND FOURTH GRADE STUDENTS** Order No. 8127367

BONINE, PEGGY SUE, Ed.D. East Texas State University, 1981. 118pp  
Adviser: Bill B. Bryant

*Purpose of the Study.* The purpose of this study was to evaluate the reading achievement of two groups of randomly selected third- and fourth-grade children who were taught reading by two different learning modes. Objective data were collected to determine if there were significant differences between the reading achievement of students who received diagnostic reading instruction and the reading achievement of students who received the traditional basal reading instruction.

*Procedure.* The subjects selected for this study were third- and fourth-grade students enrolled in Northeast Texas suburban elementary schools. The test used was the *Barnell Lott Specific Skill Series*. This pretest and posttest diagnostic test measured eight skills: *Working with Sounds, Following Directions, Using the Context, Locating the Answer, Getting the Facts, Getting the Main Idea, Drawing Conclusions, and Detecting the Sequence.*

In order to contribute empirical support in conducting this investigation, thirty-two hypotheses were formulated. An analysis of covariance was used to test each hypothesis. The pretest reading scores and intelligence quotients (IQ) were used as covariates. The alpha level was set at .05.

*Findings.* An analysis of covariance revealed that of the thirty-two hypotheses identified in this study, eighteen hypotheses were rejected and fourteen hypotheses were not rejected. The findings were as follows: (1) There was a significant difference in the reading achievement of third-grade girls favoring the experimental group in four skill areas out of the eight skills tested. (2) There was no significant difference in the reading achievement of third-grade girls in four skill areas out of the eight skills tested. (3) There was a significant difference in the reading achievement of third-grade boys favoring the experimental group in two skill areas out of the eight skills tested. (4) There was a significant difference in the reading achievement of third-grade boys favoring the control group in one skill area out of the eight skills tested. (5) There was no significant difference in the reading achievement of third-grade boys in five skill areas out of the eight skills tested. (6) There was a significant difference in the reading achievement of fourth-grade girls favoring the experimental group in six skill areas out of the eight skills tested. (7) There was no significant difference in the reading achievement of fourth-grade girls in two skill areas out of the eight skills tested.

There was a significant difference in the reading achievement of third-grade boys favoring the experimental group in five skill areas

out of the eight skills tested. (9) There was no significant difference in the reading achievement of fourth-grade boys in three skill areas out of the eight skills tested.

*Conclusions.* Conclusions of this study were as follows: (1) When compared with the traditional basal approach of teaching reading, the diagnostic/prescriptive approach of teaching reading does provide for moderate improvement of the reading skills of elementary school students. (2) Each of the two methods of teaching reading was effective in increasing student reading achievement. (3) Generally fourth-grade students made more progress using the diagnostic/prescriptive approach to reading than did third-grade students. Specifically the fourth-grade students made greater progress in almost twice as many of the skill areas taught as did the third-grade students. (4) Analysis of the group performance of third- and fourth-grade students in the diagnostic/prescriptive approach showed a significant difference on the subtests, *Working with Sounds* and *Locating the Answer*. (5) Analysis of the group performance of third- and fourth-grade students in the diagnostic/prescriptive approach showed no significant difference on the subtest, *Getting the Main Idea*. (6) Analysis of the group performance of third-grade boys showed a significant difference favoring the control group on the subtest, *Detecting the Sequence*.

**THE EFFECTS OF TASK DIFFICULTY ON DISTRACTIBILITY ON A READING TASK FOR GOOD AND POOR READERS**

Order No. 8113827

CHARLES, LINDA SWANSON, Ph.D. University of California, Los Angeles, 1980. 141pp. Co-Chair: Professor Gerald J. Mahoney, Professor Judith S. Margolis

The purpose of this study was to examine the effects of task difficulty on the vulnerability of good and poor readers to the effects of visual distractors within a reading task. According to Kahneman (1973), when a task is easy, an individual has sufficient spare capacity to allocate some attention to irrelevant stimuli, and consequently, performance will not be disrupted. When task demands are high, any attention drawn off from the central task will disrupt performance.

Research on the relative effects of distractors on the performance of good and poor readers has failed to equalize task difficulty for the groups compared. Typically, the reading performance of the poor readers in the non-distraction condition has been lower than that of good readers. It is possible, therefore, that poor readers are performing at or near their capacity limitations prior to the addition of irrelevant stimuli. When distractors are added to a task, difficulty is increased still further. The relatively greater distraction effects demonstrated by poor readers may therefore be a function of task difficulty which has exceeded capacity limits rather than differences in selective attention.

A selective reading task adapted from the one used by Willows (1974) was administered individually to 48 fourth grade children classified as poor readers and good readers based on performance on a standardized oral reading test. The procedures may be summarized as follows: After the administration of a screening instrument, each child was presented before established individually for each child, and order of presentation was from easy through difficult. Of the two passages at each difficulty level, the non-distraction passage was typed double-spaced. The distraction passage was identical in form except that red words were typed between the black lines of type. Half the children read the distraction passage before the non-distraction passage at each difficulty level. All children read six passages in addition to two practice passages. After each story was read aloud, the child silently read and answered multiple choice questions on the content of the story. This design provided a comparison of reading performance at three difficulty levels, a measure of the influence of distractors at each difficulty level, and a comparison of these effects for poor and good readers.

The findings indicated that the methodology was successful in that the tasks were not more difficult for one group than another. As predicted, reading performance declined as task difficulty increased, and differences were significant between each difficulty level. The performance of poor readers was not more disrupted by the distractors than the performance of good readers. However, contrary to predictions, distraction effects were not significant at any level of task difficulty. Limited evidence in support of the hypothesis that task difficulty influences vulnerability to distraction was provided by correlational data.

These findings were interpreted as indicating that poor readers are not more distractible than good readers when tasks are not more difficult for them. However, as the distractors used in this study did not affect reading performance at any difficulty level, the relationship of task difficulty and distractibility remains unclear. It is proposed that until the principles governing this relationship are known, research on selective attention and distractibility is best limited to comparisons where non-distraction performance is equal. Establishing difficulty levels individually for children in comparison studies is one way the effects of distraction may be studied without the confounding effects of unequal task difficulty.

**A STUDY TO DEVELOP AND VALIDATE A PROCEDURE FOR PREDICTING THE FUTURE PERFORMANCE OF FIFTH GRADE STUDENTS ON THE SEVENTH GRADE FORM OF THE MARYLAND FUNCTIONAL READING TEST** Order No. 8116462

CLELAND, CRAIG JOHN, PH D. *University of Maryland*, 1980. 197pp.  
Supervisor: Robert M. Wilson

The purpose of this study was to develop and validate a procedure for predicting, from existing measures of reading achievement and intelligence, the future performances of fifth grade students on Form A of the *Maryland Functional Reading Test*. The test is required statewide in Maryland for accountability and minimum competency purposes.

The investigation was designed as a descriptive study. From out of the total seventh and ninth grade population of a large, suburban Maryland county, two random samples were selected. The seventh grade sample of 1,030 students was used to develop a prediction procedure and to conduct three accuracy checks. The ninth grade sample of 185 students was used to check the accuracy of the prediction procedure over time.

The three scores recorded by the researcher for each student were the following: (1) fifth grade percentile rank on the reading comprehension subtest of the *Iowa Tests of Basic Skills*; (2) fifth grade standard age score on the *Cognitive Abilities Test, Non-Verbal Battery*; and (3) seventh grade total percentage on Form A of the *Maryland Functional Reading Test* (MFRT).

A double cross-validation of the seventh grade sample was undertaken to estimate the degree of shrinkage of the  $R^2$ . Low (0-85), middle (86-94), and high (95-100) achievement ranges were identified based upon a cumulative frequency distribution of student scores on Form A of the MFRT. A prediction equation was calculated using multiple linear regression analysis. The two fifth grade scores were the predictor variables and the MFRT score was the criterion variable. Predicted MFRT values were calculated for each of the students. A multiple correlation of .659 was associated with the prediction equation. The accuracy of the prediction procedure was determined by comparing each student's predicted and actual MFRT scores. If both scores fell within the same achievement range, the procedure was judged to have accurately predicted performance for that student. The procedure correctly predicted high achievement, middle achievement, or low achievement for 62.8% of the seventh grade sample and for 63.2% of the ninth grade sample. Using a two range classification scheme, the procedure correctly predicted low or other achievement for 84.8% of the seventh grade sample and for 81.6% of the ninth grade sample. Of the three identified achievement ranges, the prediction procedure provided the highest prediction accuracy for students predicted to score in the high range. The accuracy of the procedure over time was checked using the ninth grade sample. The accuracy of the prediction procedure did not appear to be adversely affected by either extreme predictor scores or time.

Several implications were drawn from the study. The data from the study suggested further investigation into the relationship of the skills involved in general textual reading comprehension and in functional reading comprehension. The accuracy of the procedure suggested that it might be used as a screening device for identifying probable candidates for evaluation and possible remediation in the area of functional reading. It was also suggested that similar prediction procedures might be developed in other LEAs using guidelines developed in the study. Implications for research that were suggested by the results of the study included the following: (1) development and validation of other prediction equations based upon similar procedures; (2) comparison of prediction procedures with teacher nomination; and (3) extension of a prediction procedure into lower grades.

**A STUDY OF THE EFFECTS OF INSTRUCTING THIRD GRADERS IN INTERPRETIVE READING COMPREHENSION USING THE BASAL READER** Order No. 8115971

EKSTRAND, GAIL ELLEN, ED D. *Temple University*, 1980. 257pp

The purpose of this study was to determine the effect of instructing third graders of three different levels of general reading ability for a five month period in interpretive reading comprehension using material from basal readers. Interpretive reading comprehension skills were considered to be those that pertain to identifying and understanding the relationships of ideas that are not explicitly stated in the text. The interpretive skills that were studied were formulating the main idea, making comparisons and contrasts, sequencing, three levels of inferring cause-effect relationships, two levels of drawing conclusions.

Eighty-five third graders participated in the study. Forty-eight students in the experimental group were given instruction in four interpretive reading comprehension skills. Thirty-seven students in the control group received lessons in vocabulary development.

Four null hypotheses were tested. Two involved testing the difference between two treatment groups in (1) final vocabulary and comprehension achievement and (2) final comprehension achievement. Both vocabulary and comprehension achievement were measured using the *Gates MacGinitie Reading Test, Level C*. The third hypothesis involved testing the difference between the two treatment groups on each of nine interpretive reading skills that were measured on a test developed by the author called the *Interpretive Reading Comprehension Test*. For the fourth hypothesis, the total sample was divided into three general reading ability groups and comparisons were made of the interpretive reading comprehension scores between the two treatments and among the three reading abilities.

The *Interpretive Reading Comprehension Test*, written to determine the effect of instruction, consisted of thirty-nine open-ended questions written for three reading selections. Two selections were taken from basal readers, the instructional tool used in the study. The third selection was taken from a social studies text to demonstrate the application of interpretive reading comprehension skills to another area of the curriculum.

The results of the one way analysis revealed that the final scores for the two groups in both vocabulary and comprehension were not significantly different from each other. Significance was obtained on the interpretive reading comprehension test in favor of the experimental group on questions measuring two levels of cause-effect relationships, making comparisons, and making contrasts. Significance was not obtained on questions measuring the highest level of cause-effect relationship, two levels of drawing conclusions, formulating the main idea, and sequencing.

The *Newman-Keuls Test* was used to compare the three reading ability groups on the nine skills with significant differences in reading achievement. High and low groups were significantly different on all of the nine skills and on the total score. Significant differences were obtained between middle and low ability students in two levels of cause-effect and the total reading score. The high and middle groups attained significance on the total score but not on any of the individual scores.

An examination of the answers to the *Interpretive Reading Comprehension Test* revealed that the examiner should have probed more in an attempt to have the students focus on the correct response. Students in the experimental group appeared to have benefited from instruction during the five months in four of the nine levels of skills. Perhaps a longer amount of time would have yielded different results.

The use of the basal as the instructional tool for teaching interpretive reading comprehension has possibilities. However, inservice programs should be held to acquaint teachers with appropriate instructional strategies so that they can be better prepared to implement an interpretive reading comprehension program.

**SELECTED VARIABLES RELATED TO EARLY PREDICTION OF PERFORMANCE ON A DISTRICT READING PROFICIENCY TEST**

FREELAND, WILLIAM DARRELL, ED.D. *University of Southern California*, 1981. Chairman: Professor Charles M. Brown

**Problem.** Numerous American states, including California, have passed legislation designed to improve the quality of education. After June 1980, any student who has not met proficiency requirements in reading, writing, and computation shall not receive a diploma from a California high school. The major purpose of this study was to ascertain whether students most likely to fail a district reading proficiency test could be identified through information located in school records before the test was administered. The possibility of this identification was determined by establishing whether significant relationships exist between success on the reading proficiency test and intelligence, reading achievement test results, home language, and sex.

**Methodology.** A sample of 175 tenth grade students was randomly selected from two high schools. Instruments used for the variables of intelligence, reading achievement test results, and home language were, respectively, the Slosson Intelligence Test, the Comprehensive Test of Basic Skills (CTBS), the Nelson Reading Test, and the Home Language Survey. Pearsonian correlations were calculated for the total distribution of scores and biserial correlations were calculated for the pass/fail dichotomy. Chi-square and  $t$  tests of statistical significance were calculated for sex and home language. A series of eight multiple regressions was calculated.

**Findings.** (1) Correlations established significant relationships for all variables. The highest correlation was obtained for the Slosson Intelligence Test. All 12 correlations between the proficiency test and reading achievement tests were significant, with the Nelson Reading Test maintaining a stronger relationship than the CTBS (2) Chi-squares were calculated for the variables of home language and sex. A significant relationship was found between home language and the proficiency test. No significant relationship was found between the proficiency test and sex. (3) The *t* test of statistical significance was used for the variables of home language and sex. A significant difference was found for students who had English as a home language in contrast to those with a home language other than English. No significant difference was found in the means obtained by males and females (4) The multiple regression that best predicted performance within the total range of scores on the proficiency test included the Slosson Intelligence Test, Nelson vocabulary, CTBS comprehension and CTBS vocabulary (5) The multiple regression that best predicted performance in relation to the pass/fail dichotomy included the Nelson vocabulary and home language

**Conclusions.** (1) Performance on the proficiency test is positively correlated with intelligence, reading achievement results, and home language (2) A significant relationship exists between home language and success on the proficiency test. (3) There is no relationship between the sex of the student and performance on the proficiency test (4) A larger amount of the variance can be accounted for using a combination of independent variables

(5) Students in need of remediation can be identified early in the ninth grade year

**Recommendations** (1) The proficiency test results should be considered in terms of the total distribution of scores as well as on a pass/fail basis (2) The vocabulary section of the Nelson Reading Test should receive continued use as a predictive instrument (3) Students whose home language is Spanish should receive intensive English instruction (4) Predictive information in students' cumulative files should be utilized (5) A remediation program commencing early in the ninth grades should be instituted (6) Replication of this study in other districts, including the elementary grades, should be made (7) The interrelatedness of test success and affective measures should be investigated (8) The involvement of educators in workshops designed to disseminate knowledge regarding variables that affect proficiency test performance is recommended.

#### EDUCATIONAL COGNITIVE STYLE AND THE ASSESSMENT OF READING COMPREHENSION

Order No. 8116721

HORVATH, JOHN MICHAEL, PH.D. *The University of Connecticut*, 1980  
158pp.

Although the work of Hill (1967), Neisser (1976) and Smith (1968) leads to the expectation that there is a relationship between reading comprehension and cognitive style, no empirical demonstration of this expectation appears in the literature. This study seeks to empirically reduce uncertainty about the relationships between cognitive style and reading comprehension. The major function of this study is to exhibit for examination the relationships between descriptions of the cognitive structure of individuals and the ways those individuals perform on a standardized reading comprehension test.

The defined population of subjects used in this study is made up of all eighth grade students enrolled at two urban schools. The combined eighth grade population for both schools during that period of time is approximately three hundred sixty-five students. From this population one hundred forty-one students are selected to form the sample for this study. All groups include both male and female students.

Criterion measures of reading comprehension based on Test R, Reading Comprehension Subtest of Form 8, Level 14 of the *Iowa Tests of Basic Skills* are analyzed as they relate to elements of cognitive style. Pearson Product Moment Correlations and Partial Correlations, One-Way Analysis of Covariance and Stepwise-Multiple Regression Equations are obtained between the reading comprehension measures and the elements of cognitive style.

A summary of the findings suggest that the qualitative elements of cognitive style are, in some instances, significantly correlated with the dependent variables fact, inference and generalization levels of reading comprehension. One-Way Analysis of Covariance data suggests that significant differences in adjusted mean reading comprehension scores (fact, inference and generalization) exist for students grouped according to the major and other orientations of some of the cognitive style elements. Multiple Regression Analysis reveals that the square of *R* values for a number of the cognitive style elements (predictor variables) account for a significant proportion of the variance in reading comprehension.

#### A LONGITUDINAL STUDY OF THE EFFECTS OF A KINDERGARTEN READING PROGRAMME

LIGHT, MARTHA CAROLYN, PH.D. *University of Toronto (Canada)*, 1980

A controversy exists over the value of visually-based pre-first grade reading programmes. Advocates contend that a "whole word" approach to beginning reading at an early age will facilitate the development of a sight vocabulary. They assume that this process will eventually generalize so as to enable the reader to understand the correspondences between sound and letter, and will improve word attack skills so that the child can read new words easily. Thus the early start leads to a maintained head start in reading. An alternative point of view is that these "phonic inferences" do not derive spontaneously from a sight vocabulary learned at an early age. The latter position considers that phonic development requires a mental ability that is not necessary for the acquisition of a sight vocabulary. One must wait until the child's brain has matured sufficiently before introducing phonics. This position questions whether any advantage to participating in a pre-first grade reading programme based on the development of sight vocabulary, generalizes to aspects of reading beyond what was taught (either immediately or later) or endures over time.

The present study tests these opposing theoretical positions. It reports the reading achievement in grades two, three and four on Metropolitan Achievement Tests (MAT), subtests Word Knowledge and Reading, of children who participated in a one-year kindergarten reading programme, as compared to classmate controls who did not. The reading programme was based on the development of a sight vocabulary of words which were most meaningful to each child. The development of phonics was not stressed.

The present study included a retrospective and a prospective component. The retrospective analysis evaluated the long-term effect of the early reading programme on word recognition skills. MAT subtests Language, Spelling, Math Computation, Math Concepts and Problem Solving were included in grades three and four to determine whether any long-term advantage generalized to other school subjects. The Bristol Social Adjustment Guide provided further information.

The short-term advantage of participation in the reading programme was investigated prospectively by comparing a second cohort of experimental and control children on measures of visual and phoneme discrimination skills at entry into junior kindergarten and in senior kindergarten immediately after two years of the reading programme. These groups were compared also on reading achievement.

The results indicate that the individualized development of a sight vocabulary in kindergarten did have a positive effect on later reading achievement. An initial advantage on word recognition skills was to be expected as this aspect of reading had been specifically taught. But this advantage did not dwindle over time. Indeed, experimental subjects were increasingly superior in successive grades. They enjoyed some advantage in Problem Solving and Math Concepts subtests (which included an element of reading). But no significant differences were seen between experimental and control groups on language or spelling skills (which are customarily based on phonics), nor on math computation skills. Nor did any immediate advantage accrue with respect to the development of specific cognitive readiness skills.

The two competing theoretical positions are both, in part, supported by the results of this study. The early start did lead to a maintained advantage in reading, which endured over time. But phonic skills development was not facilitated by the early reading instruction. This finding supports the view that phonic development is age-related. It is more likely that the kindergarten reading programme eased the students into reading with the result that they entered later grades with superior classroom skills in reading, which were maintained through regular classroom instruction.

#### THE RELATIVE READABILITY OF TEN COLLEGIATE ENGLISH HANDBOOKS WITH A VALIDATION OF THE FRY READABILITY GRAPH FOR LEVELS 13-17

Order No. 8124322

LONGO, JUDITH ARLENE, PH.D. *Indiana University of Pennsylvania*, 1981. 142pp. Chairman: Dan H. Tannacito

The purpose of the study is twofold: to assess the readability of English handbooks intended for use by college freshmen and to provide comparative validity data for levels 13-17 of the Fry Readability Graph. No readability studies of college English texts have been done and the Fry Graph has not been validated at these levels.

Handbooks were chosen primarily from those whose content had been evaluated in Barbara Currier Bell's "Choosing a Reference Book for Writing," *College Composition and Communication*, 32 (1981), 38-46. The following ten handbooks were selected for analysis:

(1) Sheridan Baker, *The Complete Stylist and Handbook*, 1976.



(2) Sylvan Bernet and Marcia Stubbs's *Practical Guide to Writing*, 3rd ed., 1980. (3) Frederick Crews, *The Random House Handbook*, 3rd ed., 1980. (4) Robert M. Gorrell and Charlton Laird, *Modern English Handbook*, 6th ed., 1976. (5) *Harbrace College Handbook*, John C. Hodges and Mary E. Whitten, ed., 1977. (6) *Heath's College Handbook of Composition*, Langdon Elsbree, Frederick Bracher and Neil Altizer, ed., 1976. (7) *The Macmillan Handbook of English*, John M. Kierzek and Walker Gibson, rev. by Robert F. Willson, Jr., 6th ed., 1977. (8) James M. McCrimmon, *Writing With a Purpose*, 7th ed., 1980. (9) Dean Memering and Frank O'Hare, *The Writer's Work*, 1980. (10) *Writer's Guide and Index to English*, David Ebbitt and Wilma R. Ebbitt, eds., 6th ed., 1978.

The study establishes the readability of the paragraph, essay, and research sections of each handbook according to four readability formulas. Most handbooks ranked at about twelfth grade reading level.

The history of readability research in the twentieth century is detailed and all relevant literature pertinent to the Fry formula is reviewed. Comparative validity data for the Fry graph were gathered by applying three additional formulas, the Dale-Chall, the Flesch, and the Farr-Jenkins-Paterson.

The relatively low number of handbook passages measured at college grade levels diminishes the amount of data available for a validation study. However, seven samples ranked at college readability according to the Fry graph. Of the twenty-one possible comparisons to the levels from the other three formulas, twenty concurred with the Fry grade equivalents. The data indicate a promising beginning toward validating levels 13-17 of the graph.

#### AN INVESTIGATION TO STUDY THE RELATIONSHIP BETWEEN A NORM-REFERENCED SECONDARY READING TEST AND A CRITERION-REFERENCED FUNCTIONAL LITERACY TEST

Order No. 8114337

LYNCH, SUSAN SCOTT, PH.D. *University of South Carolina*, 1980. 108pp.

The purpose of this study was to investigate the relationship of student performance on a norm-referenced secondary reading test and a criterion-referenced functional literacy test. The total reading test from the Comprehensive Test of Basic Skills, Form S, Level 4, (CTBS/S, Level 4) was the norm-referenced test used. The criterion-referenced test was The Assessment of Basic Competencies in Reading (ABC reading test), a functional literacy test developed and validated in South Carolina. Since no criterion for passing the ABC reading test had been established, a minimum passing level was determined. The sensitivity of the CTBS/S, Level 4, reading test and the ABC reading test to course content of eleventh grade English classes was explored.

Student scores on both the CTBS/S, Level 4, reading test and the ABC reading test were correlated. A multiple regression equation yielded a multiple  $r$  of .75 and a coefficient of determination,  $r^2$ , of .56.

A minimum passing level for the ABC reading test was determined using the Nedelsky method. The MPL was calculated to be 94 correct from a total of 124 items. The predicted CTBS/S, Level 4, total reading test raw score was calculated to be 34, which represents a grade equivalent of 8.1.

The relationship between course content and student performance on the two reading tests was investigated. Eleventh grade English teachers completed a Course Content Questionnaire (CCQ). Teachers marked reading skills emphasized in their particular class, that is, teachers marked the CCQ indicating reading skills taught by the traditional content or taught by life-related content. The formula,  $CTBS/S - ABC = CCQ$  yielded a score which is an indication of relative course emphasis. The CCQ scores were correlated with the ABC reading scores and the CTBS/S, Level 4, reading scores. The correlation between the ABC reading test and the CCQ was .20, the correlation between the CTBS/S, reading test and the CCQ was .17. The t-test determined there was no significant difference between the pair of correlated coefficients.

Other questions answered were: (1) Is there a difference in the mean ABC reading test score and a low CCQ score and a high CCQ score? The independent t-test was used; the t value was not significant. (2) Is there a difference in the mean CTBS/S, Level 4, reading test score and a low CCQ score and a high CCQ score? The independent t-test was used; the t value was not significant. (3) Is there a difference between the mean CTBS/S, Level 4, reading test score and the mean ABC reading test score and a low CCQ score and a high CCQ score? The dependent t-test was used; neither t value was significant.

The major conclusions were: (1) The CTBS/S, Level 4, reading test and the ABC reading test are measuring many of the same reading skills. (2) Fifty-six percent of the variation in a student's score on the CTBS/S, Level 4, reading test can be predicted by the variation in a student's score on the ABC reading test. (3) A score of 94 on the ABC test is a grade equivalent of 8.1 on the CTBS/S, Level 4, total reading test and requires a student to answer correctly 76% of the ABC test items. (4) Only 4% of the variations in test scores can be attributed to variations in course content. (5) The average performance of students on either reading test does not differ significantly whether there is relatively even course emphasis on traditional and practical reading skills or whether there is more emphasis on traditional reading skills. (6) Neither of the two course emphases produced relatively higher scores on either reading test.

#### AN ANALYSIS OF READING MISCUSE PATTERNS AND COMPREHENSION PERFORMANCE MADE BY FOURTH AND SIXTH GRADE STUDENTS IN REGULAR AND REMEDIAL CLASSROOMS

Order No. 8125649

MCARTHUR, JANICE RAE, Ed.D. *Northern Arizona University*, 1981. 118pp. Adviser: Dr. Donald L. Platz

This research investigation was an analytical study of syntactic and semantic reading miscues as they related to comprehension of fourth and sixth grade students. The population of the study was 55 students.

The *Reading Miscue Inventory (RMI)* was used to analyze the miscue patterns of students. Miscues selected to be analyzed were the semantic and syntactic miscues as they related to comprehension.

Frequency tabulations and percentages were used in reporting the data for the four groups studied. The Mann-Whitney U nonparametric test was used to analyze data for significance.

Data was collected by having students read a story without assistance into a tape recorder. The tapes were listened to and the miscues were marked by the investigator. The miscues were analyzed according to the RMI for syntactic and semantic acceptability. Readers were also asked to retell the story in their own words. This was used to measure comprehension.

The data showed that there was no significant difference in the semantic miscues made by the fourth grade students in the regular classroom and remedial reading program. The same results were found with the sixth grade students in both groups.

A significant difference did occur when looking at the syntactic miscues of the two fourth grade groups. However, no significant difference was found in the syntactic miscue patterns of the two sixth grade groups.

Also investigated was meaning and partial meaning errors to determine understanding. The fourth grade students in the regular and remedial reading classrooms showed a significant difference on percent of meaning errors. The sixth grade reading groups showed no significance in the two meaning categories.

The scores of all boys and girls used in the study were analyzed. There was no significant difference found between fourth grade boys and girls in the categories analyzed. The sixth grade boys and girls had scores which showed a significant difference for percent of miscues and percent of meaning errors. The girls had a higher mean score for these categories.

When analyzing miscue scores by grade level, it was found that fourth grade students had a higher mean for percent of miscues than did sixth grade students. Sixth grade students had a higher mean score for the percent of semantic errors and the two types of meaning errors.

The fourth grade remedial students showed that syntactic errors had a relationship to meaning errors, which may have influenced their ability to understand what they read.

Some of the conclusions drawn from the study suggest that boys may be placed in special reading programs for different reasons than girls.

It was found that both fourth and sixth grade students made more semantic errors that were tied in with partial meaning errors.

Teachers and clinicians should be aware that semantic miscues are acceptable if the reader has gained meaning from the printed page. Syntax may interfere with meaning for remedial readers, therefore, remedial reading programs should include instruction in syntax.

## A COMPARISON OF THE PERFORMANCE OF READING DISABLED AND NON READING DISABLED CHILDREN ON A TIME/SPEECH COMPRESSION TASK

MENKEN, GREGORY ELIOTT, PH.D. *University of Southern California*, 1981  
Chairman: Professor Gerald S. Hasterok

**Purpose** This study was designed to investigate: (1) the effectiveness of time/speech compression task in determination of the presence of auditory processing problems, (2) the degree to which it identified normal auditory processors (NAP's) from disabled auditory processors (DAP's), and (3) the effectiveness of group comparisons based on average response latencies (RL) and response accuracy (RA) when subjects responded to speech compressed semantically meaningful and meaningless monosyllables.

**Procedures** Subjects were 17 normal readers and three groups of 15 reading disabled boys. Each experimental group had a specific reading disabled subtype diagnosed on the *Boder Reading-Spelling Patterns Test* (BRSP). All subjects listened to an audio tape of fifty-four monosyllables, presented at 0%, 50%, and 75% speech compression rates. A timer designed for this study measured response latencies from stimulus initiation to button pushing by a subject.

Dependent measures for prediction and categorization of reading-disabled subtype were average RL and RA. The data were analyzed using a 4 x 3 x 3 x 2-Multiple Repeated Measures ANOVA. One-way ANOVA's with post-hoc Student-Newman-Keuls group mean comparisons measured group differences in mean RL and RA. RL and RA were also assessed based on word meaningfulness. Separate ANOVA's compared group means with each dependent variable. A Multiple Regression analysis determined the extent to which average response latencies predicted chronological age.

**Findings** Analysis for response accuracy indicated significant main effects for group membership as defined by the BRSP. Significantly fewer errors were displayed by NAP's than DAP's. Response latency measurement alone was not predictive of group membership. However, it did discriminate between the two DAP subcategories. A Repeated Measures ANOVA revealed all groups made more errors on meaningless than on meaningful words. Word meaningfulness did not influence RL. No significant RL differences were apparent on comparison at 50% and 75% compression. Post-hoc comparisons showed longer mean RL's at 0% than at 50% or 75%. RA did not vary according to degree of compression, nor did it decrease in proportion to increases in age.

**Conclusions** Analysis of the data in this study generally supported the models of auditory processing upon which this study was based. Use of time/speech compression as described in this study appeared a worthwhile approach for differentiation between normal- and disabled-auditory processors. DAP's with reading disabilities were less efficient than NAP's in the processing of oral language when compared on measures of response accuracy and, to a lesser extent, response latency. Significantly greater errors by DAP's implies problems in speech sound discrimination and in their ability to rapidly assess the presence of meaning. Evidence was uncovered that all children correctly identify meaningful words more often than meaningless words. When used alone, response latency measures discriminate children with severe auditory processing disabilities from less severely auditory disabled children.

Results of this study suggest that use of time/speech compressed monosyllables with comparison of RA and RL's between NAP's and DAP's is useful in assessment of the intactness of the auditory processing mechanism as it relates to reading skills.

**Recommendations** Future investigations should examine:

- (1) comparison between NAP's and DAP's on differences in response latency and error scores with the use of monosyllables versus sentential approximations and minimally phonemically different words,
- (2) determination of the efficacy of use of time/speech compression in assessment of the integrity of the auditory processing mechanism in pre-school age children for early diagnosis,
- (3) comparison of time/speech compression measurement with results of Evoked Auditory Potential tests, and
- (4) employment of various methods of speech-sound signal distortion to determine which maximally identify children with auditory processing deficits.

## AN EVALUATION OF THE LANGUAGE CENTER FOR LIMITED AND NON-ENGLISH SPEAKING STUDENTS IN THE ALUM ROCK UNION ELEMENTARY SCHOOL DISTRICT IN SAN JOSE, CALIFORNIA

Order No. 8115431

MONTALVO, NANCY ANN, Ed.D. *University of San Francisco*, 1980. 238pp.  
Chairperson: Rosita Galang

**Purpose of the Study** The Alum Rock Union Elementary School District in San Jose, California attempts to meet the educational needs of limited and non-English speaking students by providing bilingual classes that serve students within boundaries of particular schools, and by providing a central facility that serves students from several schools. The latter serves students from eight language backgrounds.

"The purpose of this study was to assess the effectiveness of the Language Center during its second year of implementation (1978-79) with respect to student, teacher, aide, and classroom process outcomes.

**Methodology** The primary group, twenty-five Spanish-speaking students in Grades K-8 at the Language Center, were compared to a norm group and a matched group of Spanish-speaking students in bilingual classrooms at Mayfair and Mathson Schools. Data were also gathered from eighty-two other Spanish-speaking students in Grades K-8 and also teachers and aides at the Center. Chi-square or t-tests were used as appropriate and content analysis was used with the descriptive data.

**Results Student Outcomes** (1) A comparison of post-test scores of Language Center students (grades K-8) and those of a norm group showed that the Center students obtained significantly higher achievement scores in English and Spanish reading. (2) A comparison of post-test scores of Language Center students and non-Center students (grades K-8) showed no significant differences. However, the Language Center students averaged 3 percentile points higher in English reading achievement and 10 percentile points higher in Spanish reading achievement. (3) There were significant differences of higher self-esteem on 9 out of 58 items favoring the Language Center students (grades 6-8). (4) There was a significant difference in attendance records favoring the Language Center students. (5) There were no significant differences between Language Center and non-Center students in terms of student rating of instructors. (6) There were generally no significant differences in the student's perception of the classroom process. Only one item was reported as significant, indicating that the Language Center students felt that the rules in their class changed more often.

**Teacher and Aide Outcomes** (1) The Language Center staff was generally satisfied with the program administration, student placement, and overall student improvement.

**Classroom Process Outcomes** (1) There were significant differences in classroom processes, observed at the Language Center and non-Center classroom: (a) Language Center teachers utilized drilling while non-Center teachers spent more time facilitating oral and/or silent reading/reviewing; (b) non-Center teachers spent ten percent more time managing than Language Center teachers; (c) Language Center students spent twenty-four percent more time involved in academic instruction and interaction with the teacher than non-Center students; (d) the number and use of bilingual materials were more apparent in the Language Center than non-Center classrooms; (e) During primary language instruction, Language Center teachers and students used Spanish 94 percent of the time while non-Center teachers and students used Spanish only 29 percent of the time. (2) The findings on the nature and major characteristics of the Language Center indicated: (a) parent/community participation was limited; (b) instruction drew upon student's own culture and experiences; (c) a variety of language experiences in both English and primary language was used; (d) there was a lack of primary language materials; (e) staff was highly qualified and motivated; multiple criteria for student selection and placement was used; and (f) both staff and administration felt supportive of each other.

**Conclusions** The results of this study indicated that the Language Center can be an effective organizational model for the bilingual instruction of limited and non-English speaking students in an elementary school district. The results further suggest that the transfer of students from neighborhood schools and their subsequent regrouping in a multi-lingual and multi-cultural environment would not be detrimental to their levels of achievement or to their attitudes toward school and toward themselves as learners.

## AN ASSESSMENT OF METROPOLITAN READING PROGRAMS IN SELECTED TEXAS PUBLIC MIDDLE, INTERMEDIATE, AND JUNIOR HIGH SCHOOLS

Order No. 8116865

PATTON, A. C. MITCHELL, ED D. *East Texas State University*, 1981. 106pp. Adviser: Dr. James B. Wilson

**Purpose of the Study.** The purpose of this study was to examine the metropolitan reading programs in selected Texas public middle, intermediate, and junior high schools. Specifically, techniques of instruction, academic preparation of reading instructors, and methods of screening students for participation in the reading programs were analyzed in order to describe the structure of these reading programs.

**Procedure.** The metropolitan, public intermediate schools in Texas were selected if school districts were designated as being metropolitan according to the *Texas Almanac, 1979-1980* and the *Texas School Directory, 1979-1980* identified those schools which had middle school, intermediate school, or junior high school as a part of their title. A total of 538 individual schools were examined.

A questionnaire was used to gather the data. A cover letter was sent directly to each school principal with a request to forward the letter to the person or persons in charge of reading on that campus. Respondents were asked to list his/her position as follows: principal, reading specialist, department chairperson, supervisor or coordinator, or classroom teacher. A follow-up letter was sent to schools that had not responded after two weeks. This mailing included a cover letter, a return envelope, and a survey questionnaire.

**Findings.** Each responding school reported having some type of instructional reading program. Forty percent of the respondents felt that developmental reading was their choice of the type of reading program to be offered at this level. A total of 45 percent of the schools placed the responsibility for reading with a special reading department. More schools required reading in the sixth grade than in other grades. All schools reported having at least two full-time reading instructors, and 64.5 percent of the schools did not employ a part-time teacher. The most widely used evaluative instrument was a standardized achievement test.

**Conclusions.** From the findings of this study, conclusions relative to reading programs in selected public, metropolitan, intermediate schools in Texas were derived as follows: (1) Developmental reading was the most widely used program. (2) More sixth graders were provided the opportunity to receive reading instruction than were seventh, eighth, or ninth graders. (3) More students were grouped in class by teacher judgment only than by any other method. (4) Students were evaluated most often by a standardized achievement test.

## DESIGN, IMPLEMENTATION AND EVALUATION OF A STAFF DEVELOPMENT PROGRAM IN A COMPREHENSIVE READING/COMMUNICATION ARTS CURRICULUM

Order No. 8117675

PELTZMAN, DORIS LAMBERT, ED D. *University of Pennsylvania*, 1981. 307pp. Chairperson: Morton Botel

This field study was concerned with the process of designing, implementing, and evaluating a staff development program to introduce a new comprehensive reading/communication arts curriculum into one of the eight districts in the Philadelphia school system. The study concentrated on thirteen Title I elementary schools and took place over a period of one and a half years.

At the time of this study, the Philadelphia Board of Education was involved in a process of implementing a Basic Reading Program for all students in the school district and a Title I Reading Program for a specific pupil population. In addition, the school board was encouraging implementation of a new curriculum, The Pennsylvania Comprehensive Reading/Communication Arts Plan. This new curriculum appeared to this researcher to be the link to bind together two separate and distinct reading programs and meet the unique needs of every pupil.

The researcher developed strategies to accomplish this task. The plan was to follow a series of four stages: awareness of the new curriculum; the development of strategies to implement the staff development program; the introduction of the Coordinated Staff Development Program; and the follow-up, or evaluation of the program.

The process of designing, implementing, and evaluating a series of staff development programs was aimed at changing the behaviors of Language Skills Teachers and Title I Reading Aides. The new curriculum was to be incorporated into the existing reading curriculum.

A variety of field study techniques was employed to trace this change process: summative evaluations; participant and non-participant observations; pre- and post-attitude and opinion surveys; observations of Language Skills Teachers and Title I Reading Aides in the classroom; logs, journals, personal writings, checklists, interviews, and questionnaires, provided detailed information relating to the program.

Findings of the study indicated that the new curriculum was implemented in the majority of selected schools; the behaviors of Language Skills Teachers and Title I Reading Aides were altered as a result of the staff development program; and the majority of Language Skills Teachers became facilitators and change agents in their schools.

The study provided insights into the design of a staff development program to implement a new comprehensive reading/communication arts curriculum; the development of a management system that could be used in the design of future programs; and the use of a holistic evaluation of a staff development program and its effects on the behaviors of Language Skills Teachers, reading aides, classroom teachers, and principals.

## USING RELIABILITY ESTIMATES TO MEASURE REDUNDANCY OF A CLOZE INSTRUMENT

Order No. 8122317

PODOLAK, JAMES JOAQUIN PENA, PH.D. *University of Colorado at Boulder*, 1981. 116pp. Director: Professor Donald E. Carline

The purpose of the study was to measure the degree of redundancy which is reflected in responses of 100 Cloze instruments constructed from 20 passages ranging from grade 4 to 7 using a verified methodology developed for the study. The study assumed that items which were redundant were dependent on each other or on a third factor. The dependency of these items would be reflected in their correlations. The two methods of measuring redundancy were (1) to compare the degree to which dependent responses would influence three different reliability estimates; (2) to compare selected median correlations of adjacent items of selected instruments. The three estimates of reliability were constructed to measure two types of redundancy, Redundancy I and Redundancy II. Redundancy I is that redundancy reflected in causal relationships between sequential responses. Redundancy II is that redundancy found in paragraphs.

The distortion of the reliability estimates, being a measure of redundancy, was also a source of concern. It could be that the reliability calculations were distorted by redundancy. The study examined this question and suggested an appropriate reliability estimate for the Cloze instrument.

The results of the comparisons indicate that when estimating the reliability of the same instruments several different ways, the differences in estimates were systematic and in many cases indicated that there was at least one type of redundancy measure: Redundancy II. The comparison of the adjacent and non-adjacent median correlations provided no meaningful information.

The effect of redundancy on reliability estimates was consequential in the case of one type of reliability estimate used. However, this estimate is not one which is normally used.

The results of the study suggest that of the two types of redundancy measured, only one exists to a degree in the 100 passages analyzed.

The results of measuring Redundancy II are consistent with earlier studies which found the Cloze instrument to have measured redundancy in one form or another.

It is important to those who feel that responses to a Cloze test more clearly approximate the reading process than do the responses on a multiple choice test, to find more information on the construct of the Cloze instrument.

Although additional studies should be conducted before definitive statements could be made, this study certainly adds information to the construct of the Cloze instrument and perhaps to the reading process itself.

**A DESCRIPTIVE STUDY OF PARENTAL INVOLVEMENT  
USING THE PENNSYLVANIA COMPREHENSIVE  
READING/COMMUNICATION ARTS PLAN** Order No. 8117676  
RENFLOW, GLADYS SPANN, Ed D. *University of Pennsylvania*, 1981 174pp

Since the Pennsylvania Comprehensive Reading/Communication Arts Plan is relatively new in the area of improving skills, there has not been much information on its effectiveness. This study was one of several which were conducted to assess the effectiveness of PCRPA and to extend the knowledge base about PCRPA and the four critical areas: (1) Responding to Literature, (2) Self-Selected and Sustained Silent Reading, (3) Composing--Oral and Written, and (4) Investigating and Mastering Language Patterns.

The purpose of this study was to describe the development of a model parent involvement program in which parents became teachers of other parents in the four critical experiences of PCRPA. The secondary purpose was to examine the effect of such parental involvement on the quantity of their children's reading as it related to their reading achievement.

The problem was: What is the effect of parental training in PCRPA on the reading patterns of children? The problem was tested through observations, logs, questionnaires, and interviews. The results are reported in tables according to frequency and percentages and in a descriptive manner.

This was a descriptive approach study which enabled small groups to be studied in depth, as opposed to a quantitative large scale study. The investigator observed, trained, and interviewed parents through home visits and in meetings on the school site. The small group settings gave parents the opportunity to learn in a non-threatening environment.

The use of the parent component of PCRPA gave parents a skill they could use to become part of the school program as volunteers. The results of parental involvement in reading have been very positive in the urban, low socio-economic schools under study.

**FACTORS ASSOCIATED WITH IMPROVING OR NON-  
IMPROVING SCORES IN READING ON THE MICHIGAN  
EDUCATIONAL ASSESSMENT PROGRAM TEST**

Order No. 8116327

ROSEN, JANET W., Ph.D. *The University of Michigan* 1981 168pp  
Chairman: Irene K. Heller

*Factors Examined in the Study*. The Michigan Educational Assessment Program (MEAP) is designed to evaluate students in grades 4, 7, and 10 in reading and mathematics achievement. In this study the following factors were examined in conjunction with the improvement or non-improvement of grade 4 MEAP scores in reading in four selected schools in southeastern Michigan: (1) Teachers' and Principals' attitudes, (2) School climate, (3) Specific teaching of the MEAP objectives, (4) Curriculum policy and practices, (5) Emphasis on compensatory education, (6) Community factors.

*Data Collection and Analysis*. Pairs of schools from two districts were selected according to the following criteria: (1) similar school size, (2) similar low level scores on the 1975 MEAP test scores in reading, and (3) a significant difference in the MEAP test scores in reading by 1978 in one school of each pair.

A questionnaire was administered to participating teachers in grades K-3 and the principal of each selected school, followed by a personal interview with each one. Analysis of the data so collected suggests these factors may be associated with improving scores: (1) A more positive change in school faculty toward their student's progress may affect improved scores. (2) When teachers feel they have a positive effect on student achievement, this attitude may affect achievement. (3) More "time on task" may contribute to higher MEAP scores. (4) Higher teacher morale may have a positive effect on student achievement. (5) Less use of teacher aides may have a positive effect on student achievement. (6) When parents are satisfied with their child's academic curricula, it may affect the child's level of achievement. (7) Parental involvement may have a positive effect on student achievement and MEAP scores.

*Recommendations for Further Study*. The results of this investigation suggest that further studies such as the following might prove useful in the consideration of factors possibly related to improving and non-improving grade 4 MEAP test scores in reading: (1) Studies that would examine the quality of teaching skills, teachers' knowledge of specific subject matter and how different teaching styles affect MEAP scores. (2) Diagnostic evaluation of the vision and hearing skills of students taking MEAP tests. (3) Studies

to explore the quality of test administration procedures, evaluation of the expertise of the persons administering the test, and the time of the day of test administration as variables which may affect the scores. (4) A study which would examine whether student absenteeism affects the overall reported school scores on the grade 4 MEAP reading tests. (5) A study which would examine whether the scheduling of compensatory education classes during the regular classroom period is a factor contributing to lower MEAP test scores. (6) Studies which would examine whether parent and community workshops and parental involvement with the reading curriculum do affect scores.

Consideration of the factors addressed in this study, the findings of the study, and the proposed recommendations for further research may have implications for other schools hoping to improve grade 4 MEAP test scores in reading.

**THE DEVELOPMENT AND VALIDATION OF AN INSTRUMENT  
TO SURVEY COGNITIVE AND MNEMONIC STRATEGIES USED  
IN PROBLEM-SOLVING**

Order No. 8119220

SALINGER, TERRY SICKLER, Ph.D. *New Mexico State University*, 1981  
131pp. Chairman: Dr. Gerard Giordano

An instrument to survey cognitive and mnemonic strategies for memory and problem-solving situations was developed and validated.

An intensive review of the literature in experimental psychology yielded a paradigm incorporating cognitivist and associationist research on memory functioning. The review identified five specific categories of strategies used in mediating cognition and memory: acoustic mediation, visualization, rehearsal, episodic mediation, and a Gestaltist or holistic approach.

A pool of situational questions was developed and carefully analyzed. From that pool, selected questions were administered orally to students in Alamogordo, New Mexico, Senior High School. Their responses were recorded and analyzed. Transcripts indicated that the students' responses were representative of the five strategies identified in the review of the literature on cognition and memory. The student responses were used to generate forced-choice responses for the survey instrument. That the student responses so closely reflected the strategies previously identified was considered an indication of construct validity.

Initial forms of the instrument in written form were administered to students at New Mexico State University. Results were systematically analyzed, and the survey was revised appropriately. The final form of the instrument was administered to all students in Alamogordo Senior High School in May 1980 (n = 720). Results of that administration and data subsequently collected were subjected to several statistical analyses.

A cluster analysis was performed on the responses of all students to whom the instrument was administered. The analysis determined that the categories of strategies identified in the literature review were independent and did represent distinct approaches to problem-solving situations. This was considered an indication of the validity of the instrument.

Grade-point averages and reading, mathematics, and language scores from the California Test of Basic Skills were collected for a random sample of the students who had taken the survey. Students were placed into high, average, and low groupings on the basis of each of the four individual measures. Their responses to the survey instrument were then analyzed again. Chi-square contingency tables were calculated to investigate possible relationships between academic standing and strategies selected in the survey instrument.

The analysis indicated a remarkable evenness in the distribution of cognitive and mnemonic strategies in the responses of students in all academic levels. This indicates that "cognitive preferences" are not so highly specific as some research suggests and that the range of preferences, across a population is widely and evenly dispersed.

Education and psychological research has indicated that less successful students use a less flexible approach to cognitive and memory tasks than do their more successful peers. Subsequent analyses of the data will investigate this question by looking closely at frequency counts of strategy selection within academic groupings. Additional analyses will also investigate the responses of specific subgroupings, based on ethnic or sexual identity.

The study implies that it is not specifically which cognitive strategy or "preference" an individual demonstrates that is important. It is, instead, important that a person has a clearly articulated approach to problem-solving and memory demands: a dependable, perhaps flexible, strategy or set of strategies to mediate cognitive and mnemonic tasks.

**AN EXAMINATION OF SKILLS PREREQUISITE TO "MINIMUM STANDARDS/MAXIMUM GOALS IN READING FOR LOUISIANA, GRADES 1-12" AS IDENTIFIED BY TWO GROUPS OF LOUISIANA EDUCATORS** Order No. 8126997

SEYMOUR, CATHLEEN REED, Ed.D. *Northwestern State University of Louisiana*, 1981. 138pp. Directed by: Dr. Mildred Bailey

The major purpose of this study was to determine skills prerequisite to randomly selected objectives included in *Minimum Standards/Maximum Goals in Reading for Louisiana, Grades 1-12* as determined by two groups of Louisiana educators. Secondary purposes included: (1) determination of prerequisite skills as identified by educators teaching graduate reading courses in the Spring, 1981 in public universities operating under the Louisiana Board of Regents and offering the master's degree in reading (Group One), (2) determination of prerequisite skills as identified by persons teaching reading in Louisiana public schools and holding a master's degree in reading from a public institution operating under the Louisiana Board of Regents (Group Two), and (3) comparison of prerequisite skills as identified by members of Group One and Group Two.

The population included twenty-seven Group One members and 462 Group Two members. An original questionnaire was used to gather the nominal level data from all members of the population meeting the criteria of the study. A second questionnaire was sent to group members requesting a ranking of the skills identified in the original questionnaire in the order of their necessity prior to mastery of the stated objective. A third questionnaire was sent to validate rankings assigned in the second questionnaire to meet requirements of the Delphi technique, one of the data analysis methods chosen. A comparison of the validated mean ranks of the two groups was computed using the Friedman Test.

**Conclusions.** (1) Though differences were apparent, Group One members identified similar skills as prerequisite to five randomly selected objectives included in *Minimum Standards/Maximum Goals in Reading for Louisiana, Grades 1-12*. (2) Group Two also identified many of the same skills as prerequisite to the same five randomly selected objectives though some differences were evident. (3) Though some differences were noted, Group One and Group Two identified similar skills as prerequisite to five randomly selected objectives. (4) While the skills identified as prerequisite were similar, the order in which the two groups ranked the skills differed significantly.

**AN ASSESSMENT OF THE READABILITY OF THE EXPERIENTIAL WORLD INVENTORY USING THREE MODIFIED READABILITY FORMULAS** Order No. 8114998

SMITH, THOMAS MICHAEL, Ph.D. *The University of Alabama*, 1981. 124pp.

The present study investigated the effects on the response patterns of a hospitalized patient sample when the readability of certain test items taken from the Experiential World Inventory (EWI) were modified to lower readability levels. Two forms of selected test items found to be at the sixth grade reading level or higher were made. One form contained the items as they had appeared originally in the EWI. The other form contained the same items but reworded, rephrased, and in reverse order, so that they scored below the sixth grade reading level on three different readability formulas and were judged to have retained 90% or more of their original meaning by one of the co-authors of the EWI.

A counterbalanced design was used with 112 psychiatric patients, all 21 years old or older, and all having signed a patient permission form for such research. Demographic data, IQs, and test results were the data base.

Five hypotheses were tested. The first hypothesis investigated the reliability of the two forms of the test. The two forms were found to sample different domains of content, and the original form was more reliable than the rewritten form. The second hypotheses investigated the relationship between the mean number of pathological responses on the two test forms. No significant difference was found and the second-null hypothesis could not be rejected. The third hypothesis investigated the difference between the correlation of the total number of pathological responses to the 62 original items and each original item and the correlation of the total

number of pathological responses to the 62 rewritten items and each original item. Although 13 items were found to be significantly changed in validity, only two were more valid in their rewritten forms. The fourth hypothesis tested the relationship between the pathological responses to the original items and the rewritten items for each of the item pairs. A chi square test for independence of these item pairs indicated that only seven of 62 item pairs were significantly changed. The last hypothesis investigated the difference between the correlation of intelligence and total pathological responses to original items, and the correlation of intelligence and total pathological responses to rewritten items. They were found to differ significantly, and the original form of the test had a higher negative correlation with intelligence than did the rewritten form. This indicates less reliance on intelligence for the rewritten items than for the original items.

It was suggested by these findings that the modification of the items to lower reading levels was successful and appears to hold promise for similar efforts with different tests. The test of the first hypothesis indicated different domains of content for the two test forms, but no substantive significance was found. Hypothesis 2 suggested no significant difference between test forms, and the third hypothesis indicated that the validity for the original form was higher than the validity of the rewritten form. Hypothesis 4 indicated that for only seven of 62 items, the number of pathological responses were changed significantly. Finally, Hypothesis 5 indicated that intelligence was a greater influence on pathological responses on the original form than on the rewritten form.

Recommendations were for a replication study using a large sample size with subjects who were not mental patients but who had limited reading ability. Different criteria than IQ should be used. Perhaps a standard reading test or the cloze procedure would be better. Latency periods between test administration could be lengthened or an experimental between groups design utilized.

**STUDENT SELF-TRACKING WITH A MICROCOMPUTER: THE INCENTIVE EFFECT UPON READING ATTITUDE AND WORK PRODUCED** Order No. 8118399

STRONG, MARY WINIFRED, Ed.D. *West Virginia University*, 1981. 150pp

The purpose of this study was to determine the incentive effect of data self-recording by children using a microcomputer in an individualized reading program. This investigation studied the incentive effect of the microcomputer together with reading achievement, sex and grade level. The microcomputer, as used in this study, did not have a significant effect upon work performance, but attitude was affected.

The students were asked a question on the Semantic Differential Survey about attitude toward going to the reading laboratory (where an individualized reading program was housed). The other question asked relevant to the study inquired about attitude toward reading in general (basal and recreational). More students had positive attitudinal responses toward reading than toward going to the reading laboratory during the first treatment period when no incentives were issued in the reading laboratory.

During the second and third treatment periods, when incentives were given, the opposite was true and attitude toward going to the reading laboratory had a larger number of positive student responses.

The three treatment periods were: (1) no points issued for reading performance and no incentives given; (2) aide recording points earned for correct reading performance and incentives given; and (3) student self-recording of points earned on the microcomputer plus incentives given. Each of the three treatment periods lasted for a period of 29 days.

During the third treatment period when the microcomputer was in use, the students earned the least performance points of the three treatment periods. However, this was the treatment period in which the least time was spent on the task of reading. Another factor which may have influenced results include the fact that the incentive program had already been established previously and the students expected it and the timing of the program was disadvantageous.

Both treatment period and achievement were significant beyond the .001 level. The aide recording period was the one in which the students earned the most points. High achievers also earned the most points.

Sex and grade level did not have any effect on points earned by the students in this study.

The data in this research was treated by using a 2 x 3 x 3 analysis of variance with repeated measures, a 3 x 3 analysis of variance and a chi square test.

One conclusion that the study reaffirms is the validity of using incentives with programmed reading materials.

**THE EFFECTS OF THE STETSON READING-SPELLING APPROACH ON THE SPELLING ACHIEVEMENT AND ATTITUDE OF SELECTED FIRST, SECOND, AND THIRD GRADE STUDENTS IN THE PASADENA INDEPENDENT SCHOOL DISTRICT**  
Order No. 8121319  
TAYLOR, WENDELIN ANN DAVIS, Ed.D. *University of Houston, 1981.*  
508pp.

*Introduction.* Investigators have reported evidence of successful instructional methods for spelling since the late nineteenth century, yet many teachers have not applied such findings. This study was designed to provide a research-based model of spelling instruction.

*Statement of the Problem.* Questions addressed by this investigation were: (1) Will teachers giving instruction with the Stetson Reading-Spelling Approach, in conjunction with the Harbrace Spelling Program demonstrate a more positive attitude toward spelling instruction than teachers giving instruction with the Harbrace Spelling Program only? (2) Will students receiving instruction with the Stetson Reading-Spelling Approach, in conjunction with the Harbrace Spelling Program, demonstrate a more positive attitude toward spelling instruction than students receiving instruction with the Harbrace Spelling program only? (3) Will the Stetson Reading-Spelling Approach, when utilized with the Harbrace Spelling Program, result in significant gains on standardized achievement tests as compared with gains achieved using the Harbrace Spelling Program only? (4) Will the Stetson Reading-Spelling Approach, when utilized with the Harbrace Spelling Program, result in significant gains on long term retention tests as compared with gains achieved using the Harbrace Spelling Program only? (5) Will the Stetson Reading-Spelling Approach, when utilized with the Harbrace Spelling Program,

result in significant gains on weekly spelling tests as compared with gains achieved using the Harbrace Spelling Program only?

*Procedures.* Subjects were 1345 first, second, and third grade students and 55 teachers from four selected schools in Pasadena, Texas. During a twelve-week treatment period, all students received instruction using the Harbrace Spelling Program. Experimental Group students received instruction supplemented with the Stetson Reading-Spelling Approach.

The week preceding and the week following the study all teachers were given the Teacher Attitude Test. All students were given the Student Attitude Test, the Wide Range Achievement Test spelling subtest, and the Long Term Retention Test. Monday, pretests and Friday posttests were given for textbook units.

*Analysis of the Data.* Frequency and percentage distributions, *t*-tests, and analysis of covariance were used to test the hypotheses with three performance groups in each of three grades, grade level populations, and overall study populations.

*Results.* (1) Significant differences in teacher attitude were not indicated on fifty-one of sixty research knowledge and application statements, but were indicated on four statements favoring the Experimental Group and five statements favoring the Control Group. (2) Significant differences in student attitude were not indicated with grade level or overall study populations, but were indicated with one performance group sample favoring the Experimental Group and one performance group sample favoring the Control Group. (3) Significant differences in spelling achievement were indicated with one performance group sample favoring the Experimental Group, two performance group samples, one grade level sample, and the overall study population favoring the Control Group. (4) Significant differences in long term retention of spelling words were indicated with one performance group sample, one grade level sample, and the overall study population favoring the Experimental Group. (5) Significant differences in short term memory of spelling words were indicated with one of 108 performance group samples favoring the Control Group, 23 performance group samples, 18 of 36 grade level samples, and 11 of 12 overall study samples favoring the Experimental Group.

*Recommendations.* It is recommended that the Stetson Reading-Spelling Approach be utilized in studies with the following experimental groups: students receiving instruction using the Stetson Reading-Spelling Approach only, students in various geographical areas, fourth and fifth graders, secondary students, bilingual students, and low achievers.

It is also recommended that teacher education programs be designed to inform teachers about research-supported spelling methods.

**THE RELATIONSHIP BETWEEN GOOD AND POOR READERS' AWARENESS OF READING SCHEMATA AND THEIR PERFORMANCE ON A MEASURE OF READING COMPREHENSION**

Order No. 8117386  
THOMAS, A. LOUISE, Ph.D. *University of Maryland, 1980* 190pp.  
Supervisor: Dr. Robert M. Wilson

This study investigated the relationship between the attitude and awareness of certain parameters of reading of 100 sixth grade readers and their performance on a measure of reading comprehension. A Reading Attitude and Awareness Inventory was developed prior to data collection. Performance on the two measures was analyzed for relationships and differences between good and poor readers on the inventory. Data were analyzed using the Pearson Product-Moment Correlation, the two-sample *T*-test, and a qualitative item analysis.

A correlation of .62 was found between scores on the Reading Attitude and Awareness Inventory and scores on the *Iowa Test of Basic Skills*, Comprehension Section, significant at the  $p < .001$  level. There were significant differences found between the two groups on their performances on the Reading Attitude and Awareness Inventory, using the two-sample *T*-test method analysis.

The findings indicate that the defined components of reading schemata contribute to the reader's knowledge about reading and to reading comprehension. Poor readers are found to be relatively unaware of reading as a search for meaning of strategies necessary for proficiency.

**A MULTIPLE DISCRIMINANT CROSS-VALIDATION OF THE FACTORS ASSOCIATED WITH THE DEVELOPMENT OF PRECOCIOUS READING ACHIEVEMENT** Order No. 8123822

TOBIN, AILEEN WEBB, Ph.D. *University of Delaware, 1981.* 351pp  
Professor in Charge: John J. Pikulski

The primary purpose of this investigation was to identify and measure the relative importance of those factors which seem to be conducive to preschool reading achievement. In particular, two studies were conducted, each of which adopted a multiple discriminant analysis to obtain an empirically derived description of the variables that best distinguish three types of preschool children: *early readers*, those children who have learned to read with some degree of fluency without the benefit of any formal instruction in reading; *preschool readers*, those children who seem ready to learn to read and have attended a preschool offering a formal program of reading instruction, and *non-early readers*, those children who are similar to early readers in terms of their sex, race, chronological age, intelligence, and previous nursery school experiences, but who cannot yet read with any degree of fluency. Fluency was operationally defined as the ability: (a) to recognize at least 20 of a total of 40 words commonly introduced in preprimer texts; and (b) to earn the minimum, tabulated grade equivalent scores on the Gates-MacGinitie Reading Tests.

Forty-nine subjects participated in Study I: 17 early readers, 15 preschool readers, and 17 non-early readers. The population for Study II ( $N = 76$ ) consisted of 30 early readers, 16 preschool readers, and 30 non-early readers.

The subjects' reading readiness and psycholinguistic skills were assessed using a battery consisting of the following measures: the Letter Recognition Test of the Metropolitan Readiness Tests; the Geometric Design and Sentences subtests of the Wechsler Preschool and Primary Scale of Intelligence; the Auditory Sequential Memory, Grammatic Closure, and Sound Blending subtests of the Illinois Test of Psycholinguistic Abilities; the Visual Attention Span for Letters subtest of the Detroit Tests of Learning Aptitude; and the Wepman Auditory Discrimination Test. In addition, an extensive, structured interview was conducted with the parents of each subject to obtain information concerning: demographic variables, early developmental history, playtime preferences and social adjustment, formal preschool experiences, parenting practices, parental attitudes toward reading instruction, preschool reading skills of family members, and personality traits.

Two-tailed *T* tests indicated that the preschool readers recognized more words than the non-early readers ( $p < .05$ ) but less than the early readers ( $p < .05$ ).

The results of the multiple discriminant analyses indicated that virtually all of the between-groups variance could be accounted for by a relatively small subset of the variables on which data were collected. In both studies, the variables that best distinguished the three groups of subjects were measures of the type and amount of parental assistance they had received in learning to read. In particular, it appeared that the parents of early readers were more likely (a) to engage their children in informal, game-like activities which could be expected to promote their mastery of letter-sound correspondence, and (b) to take advantage of opportunities to help their children develop and/or extend their sight vocabulary, i.e., by pointing to the words when they were reading aloud to their children or by pointing out the words on signs, packages, etc. Both of the studies also suggested that at least part of the explanation for the preschool readers' early success might be attributed to the reading instruction they had received as part of their preschool program.

A double cross-validation procedure was adopted to evaluate the validity of the findings. This procedure suggested that both of the discriminant analyses were subject to sampling errors. Of the two analyses, only the one performed in Study II seemed to retain a reasonable amount of predictive power on cross-validation.

### RELATIONSHIPS AMONG MEASURES OF INTELLIGENCE AND READING ACHIEVEMENT IN YOUNG GIFTED CHILDREN

Order No. 8121261

WHITSON, BARBARA LEE, PH.D. *University of Washington*, 1981 270pp  
Chairman Professor Maurice F. Freehill

Relationships among three individual measures of intelligence, level of reading achievement, and differentiated cognitive abilities were investigated within a group of gifted first and second graders. The 43 subjects had earned Stanford-Binet or WISC-R IQ scores of 125 and above prior to selection.

Data included (a) IQ and MA scores on the S-B ( $\bar{X}$  IQ = 142.7), Slosson Intelligence Test ( $\bar{X}$  IQ = 142.3), and WISC-R Verbal ( $\bar{X}$  IQ = 134.4), Performance ( $\bar{X}$  IQ = 122.6), and Full Scales ( $\bar{X}$  IQ = 131.8), (b) Woodcock Reading Mastery Tests scores for Word Identification (Grade Equivalent = 4.8), Word Attack (GE = 7.8), Word Comprehension (GE = 4.7), and Passage Comprehension (GE = 4.5), (c) WISC-R subtests, and (d) Structure of Intellect Operations scores derived from intelligence test items (Meecker, 1969).

*Hypothesis I:* S-B and SIT IQ's (a) will correlate significantly, (b) will not differ in level, (c) will correlate significantly with the FS IQ, (d) will correlate more strongly with the VIQ than the PIQ, and (e) will be significantly higher than WISC-R IQ's. This hypothesis was fully substantiated.

*Hypothesis II:* IQ scores will correlate more strongly with Information, Similarities, Vocabulary, and Block Design than with other WISC-R subtests. This hypothesis was partially confirmed. Significant correlations were Vocabulary and Picture Completion with the three IQ's, information with SIT and FS IQ's, and Similarities with S-B and FS IQ's. Arithmetic and Coding correlations were negligible, other WISC-R subtests correlated significantly only with the FS IQ.

*Hypothesis III:* IQ will correlate most strongly with the SOI Operations of Cognition, Memory, and Convergent Production. This hypothesis was partially confirmed. The S-B correlated significantly with Memory and Divergent Production, the SIT with Cognition and Memory, and the WISC-R with Cognition, Memory, Convergent Production, and Evaluation. Operations were significantly intercorrelated within tests, but not within Operations, when compared across tests.

*Hypothesis IV:* Reading will correlate significantly with MA scores, with Information, Similarities, Vocabulary, and Block Design subtests, and with Cognition and Memory Operations. MA will more accurately predict reading level than will subtest or Operations scores. This hypothesis was partially confirmed through partial correlations, controlling for grade. The SIT correlated significantly with all reading scores, the S-B and WISC-R correlated significantly with Word Comprehension and Passage Comprehension.

MA scores were entered first into regression analyses, excepting Binet MA and Work Attack. WISC-R subtest scores and Operations scores contributed little to the variance of reading achievement.

Major conclusions of the study were that (1) The superior abilities and achievements of gifted children distinguish them from the earliest grades. It is recommended that identification begin early so appropriate educational programming can be provided.

(2) Neither a single intelligence test nor rigid cutoff scores should be used to identify the gifted. Individual performances on intelligence tests vary greatly. A child selected on one test may not be selected on another. (3) The SIT correlated well with the S-B and WISC-R. Of the intelligence tests, it best predicted reading ability. It is recommended as a reliable test for screening of the gifted. (4) The WISC-R would select the most restricted group of children. (5) The superior intellectual ability of young children appears to be demonstrated more in the complex and conceptual aspects of reading than in the fundamental word recognition and decoding skills. (6) SOI Operations were not reliably independent, they lacked concurrent validity across the intelligence tests, and they did not reliably predict reading achievement. The SOI is not an effective or reliable tool for diagnosing individual strengths and weaknesses or for developing individualized curricula for young gifted children.

### AN ANALYSIS OF SELECTED PSYCHOLINGUISTIC INSTRUCTIONAL AIDS FOR THE REMEDIATION OF LEARNING DEFICIENCIES AMONG EARLY ELEMENTARY CHILDREN

Order No. 8117939

WILLIAMS, JANICE SOUTHERLAND, ED.D. *East Tennessee State University*, 1981 153pp

The problem was to determine whether selected psycholinguistic instructional aids were effective in remediating learning deficiencies among early elementary children (grades 1-3).

Literature was reviewed to substantiate a need for the use of psycholinguistic instructional aids for remediation of learning deficiencies among early elementary children. Research surveyed included auditory perception skills, language skills, motor skills, and visual perception skills.

Data were collected from test groups of students in grade levels one, two, and three. A stratified random sampling technique yielded a sample of thirty-six students: eighteen males and eighteen females. Each of the three grade level groups in the sample was divided randomly into two groups containing an equal number of males and females. These groups were labeled the experimental groups and the control groups.

The Illinois Test of Psycholinguistic Abilities (ITPA) was administered as a pretest to the sample. A series of reading lessons was taught for an instructional period of twenty-one sessions to both experimental and control groups. The experimental groups were provided thirty-minute sessions of prescribed psycholinguistic instructional aids following the presentation of each reading lesson. The control groups received pseudo-treatment designed to control for the Hawthorne effect. The ITPA was re-administered as the posttest.

No significant difference was found between the scores achieved on the ITPA for the experimental groups and the control groups for grade levels one, two, or three. There was no significant difference found between the scores for the composite experimental group and the composite control group. The 0.05 level of significance was applied in all cases using the statistical technique of analysis of covariance with the pretest as the covariate.

The comparison of experimental groups and control groups found that: (1) The experimental groups for all grade levels showed higher increases than the control groups. (2) The composite experimental group showed an increase over the composite control group.

The comparison of male and female control and experimental groups found that: (1) The male experimental groups showed an increase over the male control groups with the exception of the second grade level where the control group was slightly favored. (2) The female experimental groups showed an increase over the female control groups in all grade levels. (3) The female experimental groups, including the composite experimental group, showed a gain over the male experimental groups.

The recommendations made as a result of the study were: (1) Additional studies should be conducted using larger samples and/or longer durations of time to determine whether selected psycholinguistic instructional aids were effective in remediating learning deficiencies. (2) Replication of the study should be made in other geographical areas using different research designs and methodologies in order to increase the ability to generalize the results. (3) Studies should be conducted with middle and upper elementary school children to determine whether psycholinguistic instructional aids were effective for the remediation of learning deficiencies at those grade levels. (4) Schools should use evaluation instruments such as the Illinois Test of Psycholinguistic Abilities to assess students' psycholinguistic abilities and incorporate the findings into staff development programs and professional growth activities. (5) Studies should be conducted on the impact of psycholinguistic instruction on students' self-concepts. (6) Studies should be conducted to determine if paraprofessionals could enhance students' psycholinguistic performance.

## THE INFORMAL READING INVENTORY: ITS LINGUISTIC VALUE IN SECOND LANGUAGE READING ASSESSMENT

Order No. 8116534

YOUNG, CHARLEISE TOLAND, PH.D. *Georgetown University*, 1980. 255pp.

This study reports the findings of an informal reading inventory (IRI) administered to 59 Spanish-speaking adults enrolled in Adult Basic Education/English as a Second Language classes, or English as a Foreign Language classes, and 20 American students enrolled Spanish as a Foreign Language classes at the college level. The informal reading inventory is an untimed, non-standardized power test and diagnostic tool systematically constructed to measure word recognition skills, as well as oral and silent reading comprehension. Among its attributes are the ease of construction and administration, and its content validity. The IRI was once the sole domain of elementary school teachers, but has been used by this research in second language reading assessment to yield baseline data unavailable in standardized tests.

Two hypotheses were formulated as a basis for this study: (1) the informal reading inventory can serve as an integrative facilitator for describing the cognitive silent reading strategies of second language readers in extracting the inferential or underlying message in written extended discourse; (2) the learning experience of both the Spanish-speakers and the Americans will reveal universality in the strategies utilized at a given level of second language reading proficiency.

This study is innovative in its investigation of another approach to the problem of placement in second language classes. Many Adult Education/English as a Second Language programs have admission policies that permit registration at any point during the term, although diagnostic or other testing is administered at the beginning of the term. This informal assessment tool can be administered at any time, individually, or groups, following the procedure described in this study. In addition, the strategies or techniques used by the reader were analyzed in this study with the assistance of tape recorder monitors through which the reader verbalized while processing the textual content without interruption, and interviews following reading session.

Reading passages were randomly selected from English and Spanish texts for  $L_1$  and  $L_2$  assessment of each participant to establish strategic priorities in both languages. The interviews served to determine the students' intuitive ability to evaluate or recognize specific techniques used, and to verify or supplement data that had been recorded.

The results of this study have significance for the reading specialist whose linguistic background does not include data on the diversity of skills the second language reader has internalized in  $L_1$ , and for the instructor of Spanish or ESL/EFL who has not had training in reading methodology or the pedagogical implications of cognitive strategies in processing written extended discourse, and for those who wish to investigate the second language reader's 'hypothescript.'



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