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ABSTRACT

The major focus of this abstract bibliography is to list research studies and journal articles reported in the ERIC/CRIER Basic References which identify and examine the many variables influencing reading comprehension. The entries in Part One, which includes citations and abstracts of documents published from 1950 to 1969, have been organized under five general areas: (1) The Reader, (2) The Teacher, Methods, Materials, and Programs, (3) Language, (4) Measurement, and (5) Research Summaries. Part Two contains citations and brief annotations of documents published prior to 1950. Entries are alphabetized by author within each section. Instructions for ordering microfilm and xerography document reproductions from the ERIC Document Reproduction Service and from University Microfilms are included. (Author/CM)

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**reading
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Research on Elementary Reading:
Comprehension

Compiled by
Ronald L. Trull
Indiana University

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RESEARCH ON READING: MOTIVATION AND EVALUATION OF READING
COMPREHENSION

ERIC/CRIER READING REVIEW SERIES

Bibliography 27

Research on Elementary Reading:
Comprehension

Compiled by
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April 1970

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Contents

	<u>Page</u>
Information on the ERIC System	4
Introduction	5
Part I -- Research on Comprehension, 1950-1969, Abstracted	11
Section 1: The Reader	11
Section 2: The Teacher, Methods, Materials, and Programs	33
Section 3: Language	67
Section 4: Measurement	85
Section 5: Research Summaries	95
Part II -- Research on Comprehension, 1900-1949, Annotated	105
Author Index	143
Appendix A -- Instructions for ordering microfiche and hard copy reproductions from the ERIC Document Reproduction Service	147
Appendix B -- Instructions for ordering microfilm and xerography document reproductions from University Microfilms	148
ERIC/CRIER Reading Review Series Bibliographies available from the ERIC Document Reproduction Service	149

Information on the ERIC System:

ERIC

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ERIC/CRIER

The ERIC Clearinghouse on Retrieval of Information and Evaluation on Reading (ERIC/CRIER) is one of the 19 clearinghouses in the ERIC system. ERIC/CRIER is located at Indiana University and is a joint project of the International Reading Association and the University in cooperation with USOE. Each of the clearinghouses in the ERIC system operates within a specific area of education defined in its "scope" note. ERIC/CRIER's domain of operation includes:

...research reports, materials and information related to all aspects of reading behavior with emphasis on the physiology, psychology, sociology, and teaching of reading. Included are reports on the development and evaluation of instructional materials, curricula, tests and measurements, preparation of reading teachers and specialists, and methodology at all levels; the role of libraries and other agencies in fostering and guiding reading; and diagnostic and remedial services in school and clinic settings.

Introduction

A survey of the literature on reading comprehension at the elementary school level presents at least three basic questions: What do we mean when we use the term "comprehension"? Is comprehension a single-factor or a multifactor skill? What are the variables that enhance or impede reading comprehension? Users of Research on Elementary Reading: Comprehension can discover what reading researchers have to say about these and many other questions related to comprehension. A brief look at some of the entries found in the bibliography reveals the types of answers we get to our three basic questions.

What do we mean when we use the term "comprehension"?

We find that some authors make no attempt to define "comprehension" in their studies. Some identify specific skills basic to comprehension. One author states that the absence of agreement on the meaning of the term has left the word with so many meanings that, in reality, it has no meaning at all. Recognizing the need to define "comprehension," later authors compose a spectrum of definitions moving from the very simple which explains comprehension as understanding what is read to the very complex which incorporates cognitive and affective processes.

Therefore, it is not the purpose of this bibliography to formulate a restrictive definition but to identify specific areas of confusion in "comprehending comprehension" and to offer suggestions for understanding the term. Areas of confusion which are pointed out include the highly individualized terms used by the authors of reading texts, the weaknesses in comprehension tests, and the confusion attributable to instructional materials. At least one analysis of (1) materials used to teach comprehension skills and of (2) curriculum guides and textbooks designed to instruct the teacher reveals no clear idea of what skills should be taught. But, many entries in the bibliography present sound recommendations for improving the user's understanding of reading comprehension.

Is reading comprehension a single-factor or a multifactor skill?

In the early 1940's at least two studies using factorial analysis of comprehension supported the multifactor theory of comprehension--that comprehension of a passage involves the use of many independent skills. A number of skills were identified. Knowledge of word meanings, the ability to infer meanings and to weave together several statements, and the ability to identify the writer's purpose were among the skills seen as underlying the variance in reading comprehension.

Reactions to these studies followed. One author, using the same data from a study supporting the multifactor theory, concluded that fundamental elements underlying reading comprehension had yet to be identified.

A second author published an analysis of the comprehension of literature. Using the factor analytic technique, he concluded that the passages, to be understood, did not require the mobilization of different comprehension skills.

In some minds the single-factor vs. the multifactor argument remains unanswered. However, most authors, when discussing reading comprehension, explicitly identify or imply a number of underlying skills. Those who oppose the multifactor theory do not necessarily deny the existence of such underlying skills. They do point out that the procedures for identifying these skills are weak and that the positive identification of such discrete skills has yet to be made.

Many additional entries lend themselves to this question. One author points out that a survey of the literature on comprehension can produce a list of "several hundred" skills (many overlapping) important to comprehension. Perhaps the strong point of this bibliography is that it does indeed identify for the user possible skills that contribute to the reader's comprehension--skills that the user of the bibliography can personally evaluate as relevant or irrelevant, according to his needs and purposes.

What are the variables that enhance or impede reading comprehension?

The major focus of Research on Elementary Reading: Comprehension is its identification and examination of the many variables which influence reading comprehension. For the convenience of the user, the entries from 1950 onward have been organized under five general areas: (1) The Reader, (2) The Teacher, Methods, Materials, and Programs, (3) Language, (4) Measurement, and (5) Research Summaries.

Included in the first general area, The Reader, are entries which identify and examine variables within the reader which influence his reading comprehension. Intelligence, environmental factors, specific skills and achievement, affective factors, and physiological factors are studied.

Included in the second general area, The Teacher, Methods, Materials, and Programs, are entries which identify, examine, and evaluate the effects of teacher variables, the use of different methods and materials, and the effects of different reading programs on reading comprehension.

In the third general area, Language, the effects of linguistic factors such as language structure, grammatical relationships, and structural redundancy on reading comprehension are examined. The effects of context clues, language ambiguity, and dialect on comprehension are also examined. Studies of the use of the Cloze Procedure to determine readability are included in this section.

The fourth general area, Measurement, presents entries involved in the measurement of comprehension, including the use of cloze tests.

Multiple-choice and cloze comprehension tests are compared, and the reliability and validity of some comprehension tests are discussed.

The fifth general area, Research Summaries, contains references to general summaries of reading research that include studies dealing with reading comprehension at the elementary school level. Many of the annual Summaries of Investigations Related to Reading are included, as are summaries of reading research found in The Reading Teacher and the Reading Research Quarterly.

Regardless of the scope of its entries, any bibliography quickly becomes dated. Therefore, additional searching will be necessary to include recent documents not listed here. Users are encouraged to search abstracting and indexing tools such as Education Index, Sociological Abstracts, Psychological Abstracts, and Current Index to Journals in Education for recent published literature. In addition, current issues of Dissertation Abstracts and Research in Education will alert the user to appropriate doctoral dissertations and new U.S. Office of Education reports. International Reading Association conference proceedings are usually available in local libraries and occasionally in Research in Education.

Part One of this bibliography includes citations and abstracts of documents which were published from 1950 to 1969. Part Two contains citations and brief annotations of documents published prior to 1950. Part One is arranged under the five major sections mentioned above, with entries listed in alphabetical order within each section. Part Two is arranged alphabetically according to the author's last name, and all entries in both sections (with the exception of seven taken from USOE Sponsored Research on Reading, Supplement 1) are preceded by the ERIC/CRIER identification number. This number identifies the ERIC/CRIER Basic Reference from which the document was taken and is used to locate documents in the Indexes to ERIC/CRIER Basic References (ED 030 004, microfiche \$1.75, hard copy \$21.95 from EDRS).

Research on Elementary Reading: Comprehension is part of the ERIC/CRIER Reading Review Series which was created to disseminate the information analysis products of the Clearinghouse. Four types of documents appear in the Series. The first type includes bibliographies, with descriptive abstracts, developed in areas of general interest. The second type consists of bibliographies of citations, citations and abstracts, or citations and annotations developed on more specific topics in reading. The third type provides short, interpretive papers which analyze particular reading areas. And the final type is composed of state-of-the-art monographs which evaluate research findings in a given field, provide guidelines for applying this research to classroom practice, and identify research needs.

ERIC/CRIER publications utilize the Basic Reference Collection which includes more than 7,000 citations covering research and research-related reports on reading published since 1900. Following is a description of all Basic References, each of which can be ordered by ED

number in microfiche and hard copy reproductions at listed prices from the ERIC Document Reproduction Service (EDRS). This information follows the title of each reference. (See Appendix A for complete EDRS ordering information.) The title citation also indicates the ERIC/CRIER identification numbers of all documents in that publication. Information on the availability of the documents within each reference is included in the descriptive paragraph.

ERIC/CRIER Basic References

- * Published Research Literature in Reading, 1900-1949
(ED 013 970, microfiche \$2.00, hard copy \$24.90 from EDRS).
Includes ERIC/CRIER identification numbers 2 to 2883.
- * Published Research Literature in Reading, 1950-1963
(ED 012 834, microfiche \$1.50, hard copy \$19.90 from EDRS).
Includes ERIC/CRIER identification numbers 2885 to 4803.
- * Published Research Literature in Reading, 1964-1966
(ED 013 969, microfiche \$0.75, hard copy \$9.10 from EDRS).
Includes ERIC/CRIER identification numbers 4804 to 6562.

These references present citations and annotations of published research literature taken from the annual Summary of Investigations Related to Reading. Complete bibliographic data for all entries are given, and the entries are arranged alphabetically by author in yearly segments. The bibliographies cover the complete reading spectrum from preschool to college and adult years and present research on all aspects of reading, including physiology, psychology, sociology, and the teaching of reading. The articles in these references have appeared in the published journal literature and are available in libraries which have good journal collections.

Bibliographies published as part of the Reading Review Series include material taken from the annual summaries of 1900 to 1968. New articles are incorporated each year as the annual Summary is completed.

- * USOE Sponsored Research on Reading
(ED 016 603, microfiche \$0.50, hard copy \$5.30 from EDRS).
Covers 1956 through 1965 and includes ERIC/CRIER identification numbers 6563 to 6706.
- * USOE Sponsored Research on Reading, Supplement 1
(ED 031 606, microfiche \$0.50, hard copy \$3.05 from EDRS).
Covers 1966 through June 1969.

These references provide a comprehensive review of USOE projects on reading and closely related topics funded by the Bureau of Research

since its inception in 1956. Each entry includes citation data, index terms, and a descriptive abstract of the contents of the documents. (Supplement 1 uses index terms only.) Individual documents are available from EDRS; complete information on microfiche and hard copy prices is included with each entry, along with the ED number necessary for ordering.

- * Recent Doctoral Dissertation Research in Reading
(ED 012 693, microfiche \$1.00, hard copy \$11.05 from EDRS).
Covers 1960 to 1965 and includes ERIC/CRIER identification numbers 5348 to 5727.
- * Recent Doctoral Dissertation Research in Reading, Supplement 1
(ED 028 055, microfiche \$0.75, hard copy \$9.00 from EDRS).
Covers 1966 to 1968 and includes ERIC/CRIER identification numbers 6707 to 7051.
- * Recent Doctoral Dissertation Research in Reading, Supplement 2
(ED 035 793, microfiche \$0.50, hard copy \$5.25 from EDRS).
Covers July 1968 through June 1969 and includes ERIC/CRIER identification numbers 7428 to 7619.

These bibliographies list dissertations completed in colleges and universities in the areas of preschool, elementary, secondary, college, and adult reading. Relevant issues of Dissertation Abstracts were reviewed, and dissertations on reading were selected. Information on the procedures, design, and conclusions of each investigation is given in the abstract. Each entry includes complete bibliographic data and is listed alphabetically by author.

Copies of the documents in these references can be ordered from University Microfilms, Ann Arbor, Michigan, in positive microfilm or hardbound xerographic form. (See Appendix B for complete ordering information).

- * International Reading Association Conference Proceedings Reports on Elementary Reading
(ED 013 197, microfiche \$4.25, hard copy \$56.85 from EDRS).
Includes ERIC/CRIER identification numbers 5908 to 6252.

This basic reference lists the important papers published in the yearly conference proceedings of the International Reading Association in elementary reading from 1960 to 1966. The complete text of each paper is provided, and the 345 papers are presented within 16 subject categories. The documents in this reference can be ordered only as a complete unit.

* International Reading Association Conference Proceedings Reports on Secondary Reading

(ED 013 185, microfiche \$2.25, hard copy \$30.70 from EDRS).
Includes ERIC/CRIER identification numbers 5728 to 5907.

This companion volume to the preceding reference lists the important papers on junior and senior high school reading published in the yearly conference proceedings of the International Reading Association from 1960 to 1966. The complete text of each paper is provided, and the 180 papers are presented within 12 subject categories. The documents in this reference can be ordered only as a complete unit.

* Indexes to ERIC/CRIER Basic References

(ED 030 004, microfiche \$1.75, hard copy \$21.95 from EDRS).
Covers 1950 to June 1967 and includes ERIC/CRIER identification numbers 2882 to 6706.

This reference tool provides indexes to ERIC/CRIER Basic References by broad subject, grade level, and author. The broad subjects are defined with descriptive phrases chosen from the documents.

**Part I -- Research on Comprehension,
1950-1969, Abstracted**

Section 1: The Reader

6724

Bellin, Adelaida Peinado. Creative Thinking Ability and Its Relationship to Reading Comprehension and Intelligence of Fourth-Grade Pupils. 101 p. (Ph.D., University of Minnesota, 1967) Dissertation Abstracts, 28, No. 7, 2429-A. Order No. 67-17,260, microfilm \$3.00, xerography \$5.20 from University Microfilms.

This study was designed to determine whether a significant relationship exists between measures of creativity and basic reading ability and the intelligence of fourth-grade pupils. The sample consisted of 250 fourth graders enrolled in seven randomly selected St. Paul, Minnesota, public schools during the school year 1965-66. The creativity of the subjects was checked by the use of the Minnesota Tests of Creative Thinking, verbal and nonverbal forms (abridged). Basic reading skills were measured by the reading test of the Iowa Test of Basic Skills. Intelligence was determined with the Lorge-Thorndike Intelligence Test. The research findings supported the conclusion that the relationship between creative thinking ability and reading comprehension of fourth graders is affected by intelligence. The general correlation between basic reading ability and creativity was low but positive, indicating a slight relationship between creative thinking ability and reading comprehension. It was also found that there was a significant relationship between creativity and intelligence and that there were no significant differences in the mean reading scores of the high creatives and the low creatives in all creative measures when intelligence was held constant.

5375

Bonner, Myrtle Clara Studdard. A Critical Analysis of the Relationship of Reading Ability to Listening Ability. 236 p. (Ed.D., Auburn University, 1960) Dissertation Abstracts, 21, No. 8, 2167-68, microfilm \$3.05, xerography \$10.80 from University Microfilms.

The STEP Listening Test, the Pintner General Ability Test, Non-Language Series, the Stanford Achievement Test, Elementary and Intermediate, and the Sonotone Hearing Tests were administered to 282 pupils in grades 4, 5, and 6. Correlation, Chi-square, and multiple regression were used in the statistical analysis of the data. Significant correlations were found between listening and reading comprehension, total reading, and intelligence at fourth-, fifth-, and sixth-grade levels. Listening and vocabulary were significantly related at the fourth-grade level. In fourth, fifth, and sixth grades listening was correlated with reading when intelligence was held constant. Intelligence was correlated with reading when listening was held constant. The correlations ranged from .27 to .64. Negative correlations were found between listening and chronological age in grades 4, 5, and 6. Significant multiple correlations were found in intelligence, listening, and reading in grades 4, 5, and 6. Sex was not related to listening in any grade.

4571

Bryan, Quentin R. "Relative Importance of Intelligence and Visual Perception in Predicting Reading Achievement," California Journal of Educational Research, 15 (January 1964) 44-48.

Research on the relationship between intelligence and early reading development and between visual perception and reading success is summarized. Ninety-one children in kindergarten through third grade were tested with the Kuhlman-Anderson Intelligence Test, the California Achievement Test, and the Marianne Frostig Developmental Test of Visual Perception to determine the relative importance of visual perception and intelligence in the reading development of primary age children; kindergartners and first graders were also administered the Metropolitan Reading Readiness Test. Visual perception is shown to have relatively more weight than intelligence for reading readiness in kindergarten and more weight than intelligence and reading readiness in predicting reading success in the first grade. It is shown that in the second grade, visual perception is correlated more highly with reading comprehension, and intelligence is correlated more highly with reading vocabulary. In the third grade, however, intelligence is indicated as a better predictor of reading success for both reading vocabulary and reading comprehension. The limitations of the study are discussed. Tables and references are included.

5402

Chronister, Glenn Morrison. The Relationship of Certain Personality Variables to Fifth Grade Reading Achievement in a Selected Group of Pupils. 114 p. (Ed.D., University of Missouri, 1961) Dissertation Abstracts, 22, No. 8, 2680-81. Order No. 61-6032, microfilm \$2.75, xerography \$5.60 from University Microfilms.

Standardized tests of personality, intelligence, and reading comprehension were administered to 167 fifth graders. Correlations were computed and analyzed separately for the total group and for boys and girls. The author concluded that (1) personality factors have a positive but only a slight relationship to reading comprehension; (2) excluding the factor of cooperation common to both sexes, boys and girls are differentiated by the selected personality factors in their relationship to reading achievement; (3) the contribution to variance of the cluster of personality variables selected for boys accounted for approximately 18 percent of the variance in reading comprehension; (4) the contribution to variance of the cluster of personality variables selected for girls accounted for approximately 7 percent of the variance in reading comprehension; (5) as a group, boys who were defined as being adaptive and conformative in dealing with others, respectful of laws and regulations, free from fantasy, and possessing pride in their community have a moderate tendency to score higher on reading tests; (6) the contribution to variance in reading comprehension for the group of personality factors selected was of such a degree as to permit no valid characterization of girls; (7) in relation to reading comprehension,

intelligence appeared to be considerably more significant than any of the personality factors studied. This was true for both boys and girls.

6802

Fleming, James Thomas. The Measurement of Children's Perception of Difficulty in Reading Materials. 206 p. (Ed.D., Harvard University, 1966) Dissertation Abstracts, 28, No. 9, 3501-A. Order No. 67-7441, microfilm \$3.00, xerography \$9.45 from University Microfilms.

The ability of children to self-select reading materials that were within a range of their reading comprehension was investigated. Average fifth-grade students read 32 short graded selections and took a comprehension test. The selections represented eight interest categories, each of which contained four selections of similar topical content and length, but which varied in readability from third- to ninth-grade level. In individual sessions, each subject was given a subset of selections and was asked to choose the story which was the "best for him," the "easiest," and the "hardest." It was found that there was little consistency in subjects' choices of easiest and hardest materials, but there was a positive significant relationship between comprehension and chosen material. Suggestions for further research are made.

5467

Glaser, Nicholas Adam. A Comparison of Specific Reading Skills of Advanced and Retarded Readers of Fifth Grade Reading Achievement. 191 p. (Ed.D., University of Oregon, 1964) Dissertation Abstracts, 25, No. 5785-86. Order No. 65-2467, microfilm \$2.75, xerography \$8.80 from University Microfilms.

A comparison between advanced third-grade readers and retarded seventh-grade readers was made to determine differences in fundamental reading behavior. Subjects were 30 third graders and 31 seventh graders who had attained at least a 90 on the Wechsler Intelligence Scale for Children and an average reading score within the fifth-grade range on the Gates Reading Survey. During individual testing sessions, words were tachistoscopically presented. Oral and silent reading of graded selections from the Spache Diagnostic Reading Scales, with comprehension checks, was observed. Bett's criteria was applied to identify each subject's independent instructional and frustration level of reading and listening. Analysis of covariance was used to determine the significant differences between the mean scores of the advanced and retarded readers. Included in the findings were the following: (1) Retarded readers made more errors, involving several parts of an individual word in a timed tachistoscopic presentation than did advanced readers. (2) Although not significantly different, advanced readers were superior to the retarded readers by approximately one-half grade level on the independent instructional reading criteria. (3) Retarded readers maintained significantly

higher mean scores than the advanced readers on the frustration and listening levels. (4) Significant differences favoring the advanced readers were found in silent reading rate at independent, instructional, and frustration reading levels. (5) At the independent and instructional reading levels, there were no significant differences in the comprehension scores of the two groups. Retarded readers achieved a significantly higher comprehension score at the frustration level. (6) Retarded readers made significantly more word repetitions, nonmeaningful substitutions, and errors involving several parts of a word than did the advanced readers.

4237

Groff, Patrick J. "Children's Attitudes Toward Reading and Their Critical Reading Abilities in Four Content-Type Materials," The Journal of Educational Research, 55 (April 1962) 313-17.

The hypothesis that a positive relationship exists between fifth- and sixth-grade children's expressed attitudes toward four different content types of reading material and their scores on an experimental test of critical reading was tested. In addition, relationships between critical reading scores, attitudes toward reading as a school activity and towards school, classmates, and teachers were explored. Subjects were 305 average fifth- and sixth-grade pupils. Three attitude questionnaires were completed. Each subject read four different content passages followed by an experimental reading test measuring literal and critical comprehension. Mean scores of the top 25, middle 50, and bottom 25 percent were compared. Correlations between all the experimental and personal variables in the study were obtained. The results suggested that the reading comprehension of an individual child as he reads is influenced to a degree by his attitude toward the content type of material being read. This is more likely to be true if he is asked to read critically. There were significant differences in attitudes toward reading due to sex. Attitude toward reading as a school activity had an important enough effect on the other variables in the study to warrant serious consideration. References and tables are included.

4888

Halliwell, Joseph W. and Stein, Belle W. "A Comparison of the Achievement of Early and Late School Starters in Reading Related and Non-Reading Related Areas in Fourth and Fifth Grades," Elementary English, 41 (October 1964) 631-39.

A school system in suburban Long Island participated in a study of the effects of early and late school entrance on achievement in reading-related and nonreading-related subject areas at the end of the fourth and fifth grades. About 70 fourth graders and 70 fifth graders enrolled in the school district for the school year 1960-61 participated. Two

modal age groups for each grade level were compared--late-entrants who entered first grade at 76 to 81 months and early-entrants who entered at 70 to 75 months. A phase of the study used Hampleman's approach and compared the oldest modal age group which entered at 79 to 81 months with the youngest group which entered at 70 to 72 months. Mean IQ and achievement scores in vocabulary, comprehension, arithmetic reasoning, arithmetic fundamentals, language, and spelling were obtained for each subgroup and grade level. Results showed that the older fourth graders were significantly superior to the younger fourth graders in all subject areas except arithmetic fundamentals. The same trend was observed for the fifth graders. These results support earlier findings that early school entrance adversely affects school achievement and that early-entrants may do well in comparison with late-entrants of less ability, but not with those of similar ability.

6670

Henderson, Edmund H. and Long, Barbara H. An Exploratory Study of Reading-Thinking Patterns Among Children of Varying Abilities. 35 p. (CRP-S-374, OEC-5-10-440, University of Delaware, Newark, 1966) ED 010 404, microfiche \$0.25, hard copy \$1.75 from EDRS.

The relationship between "reading decisions" and each of the following variables was investigated: (1) reading achievement not related to intelligence, (2) independent measures of originality and opinion formation, and (3) the personality characteristics of independence, individualism, and self-esteem. The term "reading decisions" was used to denote individual student recognitions of the possibility of divergent plot outcomes at the beginning and at the midpoint of a story. In this study, measured "recognitions of possibilities" were obtained from a sample of high-ability fifth graders before and during their reading of a short story. No significant relationships were found between the students' "reading decisions" and the variables of originality, opinion formation, or personality characteristics. Some significant interactions, however, were found between certain aspects of "reading decisions" and reading achievement corrected for IQ. This finding was replicated using a larger sample population. In a major byproduct of this study, the investigators were able to relate several measures of self-concept to reading achievement relative to arithmetic. Those students with high reading achievement scores (relative to reading achievement corrected for arithmetic) showed better social orientations and appeared to discriminate themselves as being both different and complex. Girls with high reading achievement scores were significantly higher in self-esteem than were boys with high reading achievement scores.

4422

Jan-Tausch, James. "Concrete Thinking as a Factor in Reading Comprehension," Challenge and Experiment in Reading. International Reading Association Conference Proceedings, 7 (1962) 161-64.

A study to examine the influence of creative thinking upon reading comprehension is reported. Standardized reading achievement tests and selected parts of the Goldstein-Scheerer battery of abstract and concrete thinking tests were administered to 170 children in the fourth through the seventh grades. Data were assembled according to sex, age, intelligence, and grade level and were analyzed according to Chi-square formulas for statistical significance. A significant difference in abstract and concrete behavior was found between advanced and retarded readers. Advanced readers were abstract readers, and girls behaved more abstractly than boys. Related findings of the study are given. References are footnoted.

5514

Jan-Tausch, James. Concrete Thinking as a Factor in Reading Retardation. 69 p. (Ed.D., Rutgers University, 1960) Dissertation Abstracts, 21, No. 10, 2984-85. L.C. Card No. Mic 61-2, microfilm \$2.75, xerography \$3.80 from University Microfilms.

Selected parts of the Goldstein-Scheerer battery of Abstract and Concrete Thinking Tests and the California Reading Test were used to explore the ability of a group of 170 fourth-, fifth-, sixth-, and seventh-grade advanced and retarded readers to behave in an abstract fashion. Significant differences were found between advanced and retarded readers on the Color Form Sorting Test. Advanced readers, with few exceptions, were found to be abstract thinkers. It was concluded that retarded readers may be retarded because of limitations in concrete thinking, but other causes are also operating to produce retardation. Girls in all grades tended to behave more abstractly than boys. The relationship between concept attitudes and reading achievement tended to increase at the higher grades.

5515

Jeter, Manelle Vincent. A Study of the Characteristics of Mentally Superior Achievers and Underachievers in Reading at the Fourth, Fifth, and Sixth Grade Levels. 262 p. (Ed.D., The Florida State University, 1963) Dissertation Abstracts, 24, No. 3, 1095. Order No. 63-6356, microfilm \$3.40, xerography \$11.95 from University Microfilms.

The 100 gifted fourth, fifth, and sixth graders used in this study were chosen by using four intelligence tests. Those selected had an IQ score of 120 or more on the California Test of Mental Maturity and no less than 115 on the other intelligence tests. Students were then administered the California Reading Test, the California Personality Test, and the STEP Listening Test to determine the contribution to reading comprehension of each of the following variables: vocabulary, language intelligence, nonlanguage intelligence, listening ability, and personality. The criterion was the California Reading Test, Comprehension

Section. Case studies also were made of the 10 students having the greatest degree of overachievement in reading. On the basis of the reduced battery of tests used, reading vocabulary and language mental age were found to be the best combination of predictors for success in reading comprehension. The case studies showed the most important single distinguishing factor of the bright achiever to be the vast difference in the amount of reading done. Unrestricted television viewing appeared to affect the level of reading achievement. Neighborhood environment did not make any difference, nor was there any difference in attitude of achiever and underachiever towards parents, teachers, and classmates. Achievers more often had regular study times, their own room to study in, a personal library, homes of high cultural level, and parents who attended college and who planned to have their children attend.

6858

Johnson, Joseph Carlton, II. A Study and Analysis of the Relationships at the Intermediate Grade Levels Between Attitude as Reflected in Certain Thematic Content and Recalled Comprehension of that Content. 171 p. (Ed.D., University of Virginia, 1966) Dissertation Abstracts, 27, No. 10, 3368-A. Order No. 67-3781, microfilm \$3.00, xerography \$8.00 from University Microfilms.

The reader in grades 4 to 6 was examined with regard to the manner in which his attitudes toward certain thematic content were related to his comprehension of reading selections. Three themes were used. The anthropomorphic theme dealt with success stories of animals who possessed virtuous human characteristics. The second theme was based on the victorious underdog, and the third, on the character who possessed definite culturally-alien attributes. Three stories typical to each theme were selected at each grade level. An attitude inventory and a comprehension test were constructed for each story. Subject selection was based on a range of abilities in reading, attitudes, intelligence, and sex. It was concluded that significant differences in total recall comprehension could not be attributed to differences in attitudes, that differences in literal comprehension response to reading materials of a culturally alien theme could be attributed to differences in culturally-alien attitude, and that the differences in recalled interpretative response could be attributed to differences in underdog attitudes.

3860

King, W. H. "An Experimental Investigation into the Relative Merits of Listening and Reading Comprehension for Boys and Girls of Primary School Age," British Journal of Educational Psychology, 29 (February 1959) 42-49.

An attempt was made to compare the scores of primary school children on tests of visual and auditory comprehension and to relate these

scores to the results of a verbal intelligence test and four key tests: a test of ability to follow directions; a test of immediate recall using numbers, letters, and words; a test of word meanings; and a test of attention. The remaining five of the 10 100-word passages were classified as descriptive, conversational, imaginative, practical, or scientific. The subjects were 475 students in their last term at nine primary schools in the London area. Each student read five passages, answered the questions, and listened while the other five passages were read to him, again answering the questions. The 10 comprehension tests were given on alternate mornings. A five-factor analysis of variance was carried out on 60 sets of scores randomly chosen from each grade of intelligence. Regression coefficients were obtained from the correlation matrix. Mean scores of boys and girls on the 10 comprehension tests were compared, and the findings are discussed. Tables, references, a review of related literature, and a sample comprehension test passage are included.

5532

Koontz, Eunice Raby. Significant Factors Associated with Reading Achievement in the Primary Grades: A Longitudinal Study. 174 p. (Ph.D., Ohio State University, 1960) Dissertation Abstracts, 21, No. 8, 2194-95. L.C. Card No. Mic 60-6385, microfilm \$2.75, xerography \$8.00 from University Microfilms.

One hundred and twenty-one boys and 142 girls, grades 1 through 3, were subjects in an investigation of the relationship of their school entrance age, sex, Metropolitan Readiness Test scores, Kuhlman-Anderson intelligence scores and mental ages, general health, father's occupation and education, and mother's education to their reading vocabulary, reading comprehension, and total reading scores in grades 2 and 3. Using a multiple regression technique, the author found the number readiness score and the matching item from the Metropolitan Readiness Test, the sex, and the general health of the child to be significantly related to reading achievement in grades 2 and 3.

6410

Lundsteen, Sara. "Listening, Reading, and Qualitative Levels of Thinking in Problem Solving," Vistas in Reading. International Reading Association Conference Proceedings, 11 (1966) 450-54.

Using an experimental measure designed by the investigator and entitled "Tell the Problem and Make a Plan," five variables regarding the interrelationships of reading and listening were investigated. Four unfinished stories were either listened to or read by 578 pupils of the Goleta school system in California. The stories were followed by 12 multiple-choice questions with four alternatives, each of which represented a qualitative form of thinking, that is, concrete, functional,

abstract, or erroneous. Scores were arrived at in reference to problem-listening, problem-reading, qualitative levels of thinking, a general reading test, and a general scholastic aptitude test. The number of answers falling into each category of qualitative thinking made up the subscores. For the total scores in problem-listening and problem-reading, an arbitrary rating from 0 to 3 was devised, with abstract thinking receiving the highest rating and the erroneous answer the lowest. A relatively small relationship between problem-reading and problem-listening was found. These results were further confirmed by the higher positive correlations which resulted from the comparison of the general reading and the scholastic aptitude test scores with the reading scores and the much lower correlation with the listening scores. There was some evidence to support the concept of a constellation of listening as well as reading abilities. Fourteen references are included.

3875

Maney, Ethel S. "Literal and Critical Reading in Science," Journal of Experimental Education, 27 (September 1958) 57-64.

The relationships were explored (1) between literal and critical reading comprehension of science material; (2) between verbal intelligence and general reading comprehension, literal reading comprehension in science, and critical reading comprehension in science; (3) between reading comprehension as measured by standardized tests and by science tests; and (4) between each reading skill and literal reading of science materials. Subjects were 513 fifth-grade pupils. Data from the Pintner General Ability Test, Verbal series, Intermediate, Form A; the Gates Reading Survey, Grades 3 to 10, Form 1, Level of Comprehension; and the experimental form of the Intermediate Reading Test: Science indicated the following results. There was a substantial relationship (1) between literal and critical reading comprehension in science; (2) between verbal intelligence and critical reading proficiency in science; and (3) between general reading comprehension and critical reading comprehension in science. There was a high relationship (1) between verbal intelligence and literal reading proficiency in science and (2) between general reading comprehension and literal reading comprehension of science material. There was a very high relationship between verbal intelligence and general reading ability. There was a low relationship between literal reading of science material and each of the critical reading skills. A bibliography is included.

5564

Maney, James Junior. A Study of Superior Readers in the Elementary Grades. 205 p. (Ed.D., University of Oregon, 1965) Dissertation Abstracts, 26, No. 9, 5134-35. Order No. 66-621, microfilm \$3.00, xerography \$9.25 from University Microfilms.

The word recognition abilities, comprehension abilities, and the environmental, reading, and educational experiences of superior readers in the elementary grades were investigated. Subjects were 145 superior readers in grades 2 through 6. Word perception abilities were assessed with the Silent Diagnostic Reading Tests; comprehension abilities were measured with the Gates Basic Reading Tests. Environmental, reading, and educational information was obtained from parent questionnaires, student interview sheets, teachers' rating sheets, and cumulative folders. Data analysis consisted of both intergrade and intragrade comparisons on the 10 word-perception skills and five comprehension skills. The findings revealed that the subjects were without serious physical handicaps, were above the general population in mental maturity, had varied nonreading interests, and came from families which provided both residential and marital stability. Findings relative to word perception skills revealed that the subjects had mastered seven of the 10 skills by the end of third grade. Comprehension testing disclosed that each grade level performed significantly higher for 15 of 17 mean comparisons; however, the amount of acceleration was not uniform. The developmental history in reading showed that the subjects were provided with encouragement and assistance in reading prior to first grade. Fifteen percent of the subjects were able to read independently before first grade, and 90 percent were successful from the beginning of first grade. The subjects were rated high in responsibility, attention span, cooperation, interest in learning activities, independence, and verbal expression.

4292

Maw, Wallace H. and Maw, Ethel W. "Children's Curiosity as an Aspect of Reading Comprehension," Reading Teacher, 15 (January 1962) 236-40.

This study proposed that the high-curiosity reader would be more alert and would more actively seek understanding than would the reader of similar intellectual ability who had less curiosity. After defining the term "curiosity" for the purposes of the study, two independent studies were conducted. One pilot study was made in December 1960 with 191 pupils; another, the major study, was made in March 1961 with 749 pupils. Subjects were chosen by combining teacher, peer, and self-judgment and were ranked from high to low on curiosity. In each study, curiosity groups were matched for verbal and nonverbal intelligence quotients. The differences between the means of the higher- and lower-curiosity groups were significant at the .05 level or better, with the difference in favor of the higher-curiosity groups. A discussion of results is given. Tables and references are included.

6920

Metsker, Carol Jo. Reading Versatility: A Study of Reading Rate and Comprehension in Grade Six. 134 p. (Ph.D., University of Illinois, 1966) Dissertation Abstracts, 27, No. 11, 3630-A. Order No. 67-6677, microfilm \$3.00, xerography \$6.40 from University Microfilms.

The purpose of this study was to determine the relationships between reading versatility and other reading and mental abilities. The sixth-grade subjects from a high socioeconomic urban area were administered the Iowa Tests of Basic Skills, Form 1; the Gates Basic Reading Tests, Form 1; the Educational Developmental Laboratories Reading Versatility Tests, Form B; the Kuhlmann-Anderson Test; and a nonstandardized questionnaire regarding out-of-school activities. It was found that children with higher mental ages read more rapidly, were slightly less versatile readers, and had no more ability to skim and scan than children with lower mental ages. Children who comprehended well on a general reading test also comprehended well when skimming and scanning rapidly; however, they were no more versatile than children who did not comprehend, nor did they scan more rapidly. Children with the ability to scan rapidly also comprehended well on tests of specific reading abilities, while children with the ability to skim did not necessarily comprehend well. Versatile readers spent less time reading the newspaper than nonversatile readers. There was no correlation between versatility in reading and out-of-school activities.

6446

Neville, Donald; Pfof, Philip; and Dobbs, Virginia. "The Relationship Between Test Anxiety and Silent Reading Gain," American Educational Research Journal, 4 (January 1967) 45-50.

The hypothesis that high test anxiety has an inverse relationship to vocabulary and comprehension gain was tested. Subjects were 54 boys aged 7 to 15 who were enrolled in a summer remedial reading program. Pretests and post-tests of reading and vocabulary comprehension were administered. The Test Anxiety Scale for Children was used as the anxiety measure, and subjects were divided into groups of high, middle, and low anxiety. F ratios of test results indicated that there were no differences among the three anxiety levels in vocabulary gains but that there were differences in comprehension gains. Subsequent t comparisons disclosed that of the three groups the middle anxiety group made significantly greater comprehension gains. The high anxiety group gained significantly more on vocabulary than on comprehension. It was concluded that high test anxiety did have an inverse relationship to comprehension gain but not to vocabulary gain. A possible explanation is that comprehension is a more complex task than vocabulary and requires more personal involvement. References are listed.

5597

Pacheco, Antonia Darlene. Anxiety and Reading Achievement in Sixth Grade Children. 75 p. (Ed.D., Colorado State College, 1964) Dissertation Abstracts, 25, No. 9, 5122-23. Order No. 65-253, microfilm \$2.75, xerography \$4.00 from University Microfilms.

The relationship of anxiety to and its effect on reading achievement were studied. The Children's Manifest Anxiety Scale (CMAS) and Form W of the California Reading Test were administered to 549 sixth-grade children. The t-test of significance was applied to correlations and to differences between means. The .05 level of confidence was used. The author states that the students exhibiting the highest level of anxiety achieved at a lower level in reading vocabulary and comprehension. Level of anxiety tended to affect reading comprehension more than reading vocabulary in these students. Sixth-grade youngsters who exhibited a high level of anxiety on the CMAS were less likely to falsify their responses than were those subjects exhibiting a low level of anxiety. Finally, sixth-grade girls scored higher than sixth-grade boys on the lie scale.

3546

Piekarz, Josephine A. "Getting Meaning from Reading," Elementary School Journal, 56 (March 1956) 303-09.

The case studies of two sixth-grade pupils identified as a higher-level reader and a lower-level reader in terms of their ability to derive accurate understanding from reading material were compared. The subjects were selected on the basis of equality in intelligence level and in general reading competency as measured by standardized reading tests. They read a passage concerning parent-child relations silently, then reread the selection orally in short units and verbalized their thoughts. Thirty questions were asked and answered orally with explanation by the subject of how he arrived at an answer. Analysis of the case studies indicated that the higher-level reader made a greater variety and larger number of responses than did the lower-level reader. The higher-level reader remained objective and impersonal in relation to the selection. He combined his general background in enriching the authors' meanings, while he restricted his responses to the ideas expressed in the passage. Intelligence level, critical-thinking ability, personal adjustment, and selected environmental factors did not appear to discriminate between the two pupils with respect to competence in interpretation.

4974

Robinson, H. Alan. "Reading Skills Employed in Solving Social Studies Problems," The Reading Teacher, 18 (January 1965) 263-69.

Introspective and observational techniques were used in a pilot study to determine the reading skills fourth-grade pupils actually used as they attempted to solve social studies problems. Subjects were 12 fourth-grade pupils attending the University of Chicago laboratory schools. The average chronological age was 9-6; the average IQ was 127, and reading achievement ranged from the 62nd to the 100th percentile.

Each subject met with the examiner individually and selected one of two social studies problems. The answers involved both literal and interpretive comprehension. Subjects were instructed to report verbally what they were doing during the process of solving the problem. Reading comprehension and reference skills and the methods of using them were summarized. It was concluded that although the generalization of the results was limited, the method was valid for gathering information on the reading process, and further research was indicated. Tables and references are included.

5626

Roossinck, Esther Pauline. Purposeful Reading of Science Materials by Scientists and Children. 190 p. (Ed.D., University of Illinois, 1960) Dissertation Abstracts, 21, No. 11, 3382. L.C. Card No. Mic 61-193, microfilm \$2.75, xerography \$8.60 from University Microfilms.

The purpose of this investigation was to compare the methods used by scientists in reading science material (1) to understand the main idea and (2) to relate facts and ideas in sequence, with (1) reading comprehension and rate scores and (2) reading practices considered ideal by sixth-grade children. Twenty four scientists read for the main idea, and 24 read to relate facts and ideas in sequence. Comprehension questions answered by 40 sixth graders were also answered by the scientists. Overt reading behaviors were noted, reading and question answering time recorded, and a structured interview used to enable the scientist to explain how he thought the ideal reader would read. It was concluded that science material is read differently when read for different purposes, that some reading practices of scientists are different from the reading practices of children, and that some reading practices of scientists are different from practices which children believe ideal readers would use when reading science material.

6974

Rowell, Charles Glennon. Change in Attitude Toward Reading and Its Relationship to Certain Variables Among Children with Reading Difficulties. 161 p. (Ed.D., George Peabody College for Teachers, 1967) Dissertation Abstracts, 28, No. 5, 1630-A. Order No. 67-15,001, microfilm \$3.00, xerography \$7.60 from University Microfilms.

The relationships between change in attitude toward reading of disabled readers and (1) achievement in basic reading skills, (2) change in level of comprehension, (3) achievement in reading vocabulary, (4) sex, (5) socioeconomic status, and (6) age were studied. Forty randomly selected elementary and junior high school students who participated in a corrective reading program were subjects. The control group included 30 students who were recommended but who did not participate in the program. Attitude toward reading was measured by a locally constructed

instrument. Achievement in reading was measured by the Silent Reading Diagnostic Tests and the Gates Basic Reading Tests. Warner's Scale of Index of Status Characteristics was used to determine socioeconomic status. It was concluded that the corrective program was effective in improving both reading skills and attitude toward reading. The program was also effective in improving attitudes toward conventional reading activities. The results indicated that success in learning skills is important to the development of positive attitudes toward reading. Sex, age, and socioeconomic level were not significant.

6975

Ruark, Roger D. The Understanding of Basic Reading Concepts by First-Grade Children from Indian and Non-Indian Cultural Groups. 178 p. (Ed.D., University of South Dakota, 1967) Dissertation Abstracts, 28, No. 8, 2918-A. Order No. 68-1143, microfilm \$3.00, xerography \$8.20 from University Microfilms.

The differences in the understanding of basic reading concepts by 180 first-grade children from Indian and non-Indian cultural groups were examined with respect to the effect of sex and intelligence on their success. The statistical designs utilized for the treatment of data were analysis of variance and analysis of covariance. It was concluded that insofar as the devised test was a measure of the understanding of concepts found in basic reading textbooks, there were real differences in the understanding of first-grade children representing culturally discrete groups, regardless of whether the factor of intelligence was statistically controlled. Sex was not a significant factor.

5633.

Ruddell, Robert Byron. An Investigation of the Effect of the Similarity of Oral and Written Patterns of Language Structure on Reading Comprehension. 196 p. (Ed.D., Indiana University, 1963) Dissertation Abstracts, 24, No. 12, 5207. Order No. 64-3826, microfilm \$2.75, xerography \$9.00 from University Microfilms.

Language patterns of fourth graders were studied to determine the effect of children's oral and written language patterns on their ability to comprehend reading passages that utilized language patterns similar to that of their oral language structure. Subject background variables of fathers' occupational status, parents' educational background, and subjects' intelligence, mental age, chronological age, and sex were also investigated to determine their effect on the comprehension of written material utilizing high and low frequency patterns of oral language structure. Structurally controlled reading passages were designed by determining the frequency values of oral patterns of fourth-grade children's language structure in the reading passages and by totaling the assigned frequency values. Vocabulary difficulty, sentence length,

specific subject-matter content, and passage length were equated in the reading passages. Cloze comprehension tests were constructed for the passages and administered to 131 fourth graders. Reading comprehension was found to be a function of the similarity of oral patterns of language structure to written patterns of language structure used in reading materials. Reading comprehension scores for materials that utilized high frequency patterns of oral language structure were significantly greater than reading comprehension scores for materials that utilized low frequency patterns of oral language structure. The fathers' occupational status, parents' educational background, and subjects' intelligence, mental age, and chronological age were significantly related to reading comprehension for materials utilizing high and low frequency patterns of oral language structure. Sex differences were not significantly related to reading comprehension.

6178

Ruddell, Robert B. "Variation in Syntactical Language Development and Reading Comprehension Achievement of Selected First Grade Children," Vistas in Reading. International Reading Association Conference Proceedings, 11, Part 1 (1966) 420-25.

The relationship between children's ability to comprehend and produce selected syntactical items and socioethnic classification is studied. The relationship between first-grade children's control over selected aspects of their syntactical language development and their sentence meaning comprehension, paragraph meaning comprehension, and vocabulary achievement is investigated. One hundred and sixty first-grade students representing a wide range of socioeconomic levels served as the sample. Among the findings were (1) high Caucasian subjects demonstrated significantly greater control over the selected aspects of syntactical language development than low Negro subjects, (2) low Caucasian and low Negro subjects had greater difficulty than high Caucasian subjects in the comprehension and production of sentences containing noun and verb inflectional endings and auxiliary verbs, and (3) sentence meaning comprehension, paragraph meaning comprehension, and vocabulary achievement were functions of the control which the subjects exhibited over the designated aspects of their syntactical language system.

5641

(Schlueter), Sister Mary Peter. The Role of Intelligence, Personality, and Selected Psychological Factors in Remedial Reading Progress. 98p. (Ed.D., The University of Rochester, 1963) Dissertation Abstracts, 24, No. 10, 4088. Order No. 63-7780, microfilm \$2.75, xerography \$5.00 from University Microfilms.

The possibility of predicting remedial reading gain by means of intelligence and personality tests and of specifying psychological factors

characteristic of students making the most and the least progress during a remedial reading course was investigated in the Catherine McCauley College reading laboratory at Rochester, New York, using 135 fourth, fifth, and sixth graders receiving remedial reading instruction. Three separate multiple regression analyses were conducted to predict gain in vocabulary, comprehension, and speed. Tests used were the Lorge-Thorndike Non-Verbal Scale of Intelligence, the California Test of Personality, and the Gates Reading Survey Tests. The relationship between remedial reading gain and psychological factors was treated by the Chi-square technique. A prediction equation was formulated, using the Stepwise Multiple Regression Program, making it possible within certain limits to predict the amount of progress children in fourth, fifth, and sixth grade can make in a summer remedial reading session. Personality was found to be more predictive than intelligence, and intelligence and personality combined was the best predictor in all areas (vocabulary, comprehension, and speed of reading). Thirteen psychological factors were studied, and it was concluded that children most likely to make the greatest gain in a remedial session are those who read at least 1 hour daily at home, are not overdependent on the reading teacher, increasingly enjoy reading and attending the reading laboratory, have good listening comprehension, work diligently, like their teacher, are quick to move and respond, have parents who are readers, and have no upsetting factor in their lives.

3349

Serra, Mary C. "A Study of Fourth Grade Children's Comprehension of Certain Verbal Abstractions," Journal of Experimental Education, 22 (December 1953) 103-18.

A study designed to investigate the ability of fourth-grade pupils to comprehend different verbal abstractions as identified in vocabulary common to primary grades is reported. Specific data were obtained on the following relationships: (1) the relationship existing between comprehension of verbal abstractions and background of information, (2) the relationship existing between comprehension of verbal abstractions and intelligence, and (3) the relationship existing between classifying and indexing ability. Three populations were used for this study. All were drawn from public school systems of suburban Philadelphia, grades 1 through 4. All were administered the Stanford-Binet Test of Intelligence, Form L, plus three instruments specially constructed for the study: (1) the background information inventory, (2) tests on classifying ideas, and (3) tests on indexing ideas. For the background information inventory, primary reading materials were analyzed for 246 general and science concepts. A high, positive relationship was found to exist between the variables mentioned for the three relationships studied. A bibliography and tables are included. The procedures used in the construction of special instruments in the study are described. Implications for present practices are presented.

3048

Sheldon, William D. and Hatch, Shirley. "Strengths and Weaknesses in Reading of a Group of Sixth Grade Children," Elementary English, 28 (February 1951) 86-93.

Ten percent of 620 sixth-grade pupils participating in a study of the reading abilities of good and poor readers, grades 1 through 12, in eight New York school systems were divided into good and poor readers and were given the Durrell Analysis of Reading Difficulty to determine their strengths and weaknesses. Test results revealed that both groups seemed to rate higher on silent reading than on oral reading and that the poor readers tended to read at a lower rate. The poor readers were especially weak on unaided recall; although, both groups seemed to give poorly organized recall after oral reading. While the areas in which they were adequate were fairly common to both groups, more areas of weaknesses were shown by the poor readers. A detailed list of the major errors made by each group and of their strengths indicates the differences between good and poor readers at this grade level.

6991

Shnayer, Sidney William. Some Relationships Between Reading Interests and Reading Comprehension. 210 p. (Ed.D., University of California, Berkeley, 1967) Dissertation Abstracts, 28, No. 7, 2606-A. Order No. 68-13, microfilm \$3.00, xerography \$9.45 from University Microfilms.

Some relationships between reading interests and reading comprehension were studied, using the hypothesis that a reader's comprehension is related to and varies with the degree of interest he has in what he is reading. Sixth-grade subjects were divided into groups determined by the scores achieved on the Gates Reading Survey Test. Each group was required to read 15 stories with readability scores of two grades higher than the mean reading ability for each group. The subjects rated the stories on a four-point scale to determine the degree of interest and then answered questions of fact and sequence and questions requiring the reader to make inferences, draw conclusions, and recognize the writer's point of view. Comprehension scores from stories of high interest were compared with scores from stories of low interest. It was concluded that reading interest may enable most students to read beyond their measured reading ability, that high ability students are less affected by interest than low ability students, that low interest has a negative effect on poor readers, and that a reassessment of current methods of evaluation is needed to determine whether ability or interest is lacking.

3896

Sochor, E. Elona. "Literal and Critical Reading in Social Studies," Journal of Experimental Education, 27 (September 1958) 49-56.

The relationships between critical and literal reading comprehension in social studies, general reading ability, and verbal intelligence were investigated using 513 subjects representing 18 fifth-grade classrooms. Tests administered were the Pintner General Ability Test, Form A; the Gates Reading Survey, Form 1, Level of Comprehension; and the experimental edition of the Intermediate Reading Test: Social Studies. The product-moment method of correlations was used to estimate the degree of relationships between the variables. Further analysis was made using partial-correlation and chi-square. General conclusions were (1) reading comprehension in the social studies is a composite of skills representing various levels of mental functioning; (2) literal and critical reading comprehension in social studies are relatively independent abilities; (3) individual critical reading comprehension skills are relatively independent of literal comprehension; and (4) critical reading comprehension is virtually independent of general reading ability; literal reading comprehension is relatively independent of general reading ability. Tests of general reading ability and group verbal intelligence tests tended to measure common factors. A bibliography is included.

6506

Sterritt, Graham M. and Rudnick, Mark. "Auditory and Visual Rhythm Perception in Relation to Reading Ability in Fourth Grade Boys," Perceptual and Motor Skills, 22 (June 1966) 859-64.

The relationships among the mean scores of 36 fourth-grade boys on measures of intelligence, reading comprehension, and tests of visual, auditory, and visual-auditory perception were studied. The subjects were of high general intelligence, but the variability of the group on all three measures was large. Visual test results indicated that the ability to transpose from temporal to spatial formats within the visual modality did not differentiate good from poor readers. Auditory test results indicated that either the capacity to transpose from auditory-temporal to visual-spatial formats or the auditory pattern perception was the primary function related to reading. It was concluded that auditory-temporal rhythm perception or the ability to transpose from auditory-temporal to visual-spatial patterns is related to reading in a way not fully accounted for by general intelligence. References are listed.

5676

Stiglmeier, John Joseph. A Longitudinal Study of the Growth and Achievement of Academically-Talented and Non-Academically-Talented Public Elementary School Children in Three Basic Skill Areas. 298 p. (Ph.D., Fordham University, 1964) Dissertation Abstracts, 25, No. 3, 1961. Order No. 64-8594, microfilm \$3.85, xerography \$13.50 from University Microfilms.

The achievement of academically talented and nonacademically talented students in reading comprehension, arithmetic concepts, and arithmetic problem solving over a 3-year period in grades 4, 5, and 6 was compared. The subjects were subdivided for further comparison into three groups: academically talented in special class (58 boys, 73 girls), academically talented in regular class (38 boys, 36 girls), and nonacademically talented in regular class (63 boys, 47 girls). The tests and other measuring instruments used in this study included the Iowa Tests of Basic Skills, the Stanford-Binet Intelligence Scale, and the Otis Quick Scoring Mental Ability Tests, Beta Test. Comparisons of achievement were made utilizing analysis of variance and analysis of covariance techniques. Some conclusions derived from the findings of the investigation were summarized as follows: (1) Each of the three groups of boys and girls made regular and significant gains in achievement in each of the three basic skills over the duration of the study. (2) In each of the three basic skills, the achievement of academically talented students, in both regular and special classes, was significantly higher than the achievement of nonacademically talented boys and girls in regular classes. (3) In reading comprehension and arithmetic concepts, the achievement of academically talented students in special classes was equal to or higher than that of academically talented students in regular classes. In the case of arithmetic concepts, the difference in favor of the academically talented in special classes was significant.

6507

Strang, Ruth. "Exploration of the Reading Process," Reading Research Quarterly, 2 (Spring 1967) 33-45.

Research on the dynamic process by which individuals of different abilities and backgrounds comprehend and interpret what they read is discussed as a prerequisite to effective teaching. Various methods employed to study the reading process, such as analysis of errors, introspective-retrospective verbalization, case studies, and observation of individuals' responses to reading situations, are noted. Four doctoral dissertations which explore some aspect of the reading process are described. The first studies underlying mental abilities that may facilitate or block reading achievement. The second uses a combination of methods to ascertain the reading process that severely retarded readers employ in trying to comprehend two types of selections. The third explores the relation between self-concept and achievement; the fourth uses a modified critical incident technique to obtain information on the influence of reading on high school students' concepts, attitudes, and behavior. References are listed.

5727

Zink, Blanche Phyllis. An Electromyographic Appraisal of Inner Speech During Silent Reading of Thirty-Six Fourth-Grade Pupils Within an IQ

Range of 90 to 110. 179 p. (Ph.D., The University of Texas, 1965)
Dissertation Abstracts, 26, No. 2, 916-17. Order No. 65-8110, micro-
film \$3.00, xerography \$8.20 from University Microfilms.

The possible existence of a relationship between inner speech and reading achievement was investigated. The question of whether inhibitory measures should be taken to suppress articulatory counterparts accompanying pupils' silent reading was investigated. The reading comprehension subtest score of the Iowa Tests of Basic Skills was used as a criterion for high and low reading achievement categories for 36 fourth-grade pupils. Pupils with scores above 5.8 were designated as high achievers, and those with scores below 3.8 were designated as low achievers. Only pupils within an IQ range of 90 to 110 were included. The McGuire Index of Status Characteristics was used in arriving at the socioeconomic status of the subjects. The incidence of inner speech was determined by inspection of electromyograms from skin lip electrodes during a routine silent reading of both easy and difficult materials. It was indicated that inner speech occurs more in the reading of low achievers than in the reading of high achievers. However, the good readers engage in increased amounts of inner speech when the reading material becomes more demanding in terms of reading power. Additional findings and conclusions are included.

**Part I -- Research on Comprehension,
1950-1969, Abstracted**

Section 2: The Teacher, Methods, Materials, and Programs

5348

Abbott, Janet Mary. A Study of Two Methods of Teaching Phonics in the Second Grade Classrooms of South School, Casa Grande, Arizona. 121 p. (Ed.D., Arizona State University, 1965) Dissertation Abstracts, 26, No. 4, 2072-A. Order No. 65-10,380, microfilm \$3.00, xerography \$6.00 from University Microfilms.

Seventy-two second-grade children from Casa Grande, Arizona, were divided into experimental (E) and control (C) groups to compare the Pro-Reading (E) method with the Phonetic Keys (C) method of teaching phonics. The year-long study gathered data which included IQ scores, personality scores, sociological data, reading interests, attendance, responses of teachers to the two methods, and responses of visitors. The findings indicated no statistical difference between the achievement of the two groups in total reading, vocabulary, or comprehension. No statistical difference was found between the groups on an index of mental growth or between the personality development of the groups. Teachers were completely satisfied with the experimental method; however, they had reservations concerning the control method. Conclusions and recommendations for further study are included.

6138

Bamman, Henry A. "Developing Reading Competencies Through Mathematics and Science," Reading as an Intellectual Activity. International Reading Association Conference Proceedings, 8 (1963) 110-12.

Causes for reading difficulty in math and science are noted to include (1) a complexity of ideas with little control over the number of concepts, (2) vocabulary specific to the content area, and (3) numerous and complex interrelationships and intrarelationships. Methods for improving reading instruction in math and science classes are discussed. Vocabulary development which aims at the understanding of specific terms is emphasized. Methods for improving reading comprehension in science and mathematics are observed to point to the importance of precise, methodological reading and to the sensing of the relationships among ideas. Additional topics which are discussed include rate of reading, the making of assignments, and the use of diversified materials and activities.

6728

Berson, Minnie Perrin. Changes in Achievement and Personality in Children Functioning Below School Reading Norms in a Remedial Reading Program. 245 p. (Ed.D., Wayne State University, 1965) Dissertation Abstracts, 28, No. 9, 3496-A. Order No. 66-1220, microfilm \$3.20, xerography \$11.05 from University Microfilms.

The purpose of the study was to observe and analyze student reading achievement and personality change during a remedial reading program.

The program was planned for 1 semester, followed by a summer of rest and a second semester of remedial reading, with testing done in January, May, September, and the following January. The procedure included (1) two or three sessions of remedial work done outside the classroom each week, (2) work done alone or with small groups under the instruction of a reading teacher, (3) remedial instruction combined with a supportive emotional approach, and (4) provision for opportunities to express feelings and interaction with other children. It was concluded that reading achievement developed at the expected rate, while personality factors showed a significant positive change; that capitalization, punctuation, and graphs and tables were the easiest reading skills to improve; that comprehension, spelling, and vocabulary were the most difficult; that personality factors most amenable to change, as measured by the Children's Personality Questionnaire, were factors B (Less Intelligent--More Intelligent), F (Serious--Happy-go-lucky), and H (Shy--Venturesome); and that all reading skills continued at an average rate after 1 semester, accelerated after a summer of rest, and decelerated after a second semester of work.

6657

Bloomer, Richard H., et al. Non-Overt Reinforced Cloze Procedure. 152 p. (CRP-2245, University of Connecticut, Storrs, 1966) ED 010 270, microfiche \$0.50, hard copy \$6.30 from EDRS.

The study measured the effects of training in a series of cloze procedure exercises upon reading comprehension. Students were instructed to fill in blank spaces in written text. This act of closure itself was considered to be a nonovert reinforcement. Students (1,411) in 49 classrooms participated in the study. A cross-sectional group was studied for 3 weeks, and a longitudinal group for 12 weeks. The students were from grades 5, 7, 9, and 11. The authors concluded that reading comprehension was not improved but suggested other possible uses of the procedure.

5381

Brown, Don Arlen. The Effects of Selected Purposes on the Oculo-Motor Behavior and Comprehension of Third and Seventh Grade Students of Fifth Grade Reading Ability. 133 p. (Ed.D., University of Oregon, 1964) Dissertation Abstracts, 25 No. 10, 5727. Order No. 65-2458, microfilm \$2.75, xerography \$6.40 from University Microfilms.

The effect of reading for different purposes on the oculomotor behavior efficiency and comprehension of advanced third-grade readers and retarded seventh-grade readers was investigated. Tests administered to the students included the Gates Reading Survey and the Wechsler Intelligence Scale for Children. Experimental reading sets included were a set to read in the usual manner, a set to read to understand the main

idea, and a set to read for detailed information. Performances in comprehension and in reading rate and relative reading efficiency interpreted by eye-movement photography were used in evaluating the hypothesis. Data analyses included the use of analysis of variance for differences in reading behavior between each pair of reading sets within each group. The data were also subjected to an analysis of covariance to control for intelligence and for differences between the groups for each reading set. Among the author's conclusions were (1) The advanced third-grade readers read with significantly lower comprehension than the retarded seventh-grade readers, but they excelled the retarded readers significantly in reading rate and oculomotor reading efficiency. (2) The retarded readers read with greatest efficiency and rate when directed to read in their usual manner, in contrast to the advanced readers who read with greatest efficiency and rate when asked to read for the main idea. (3) The retarded readers exhibited more oculomotor anomalies than the advanced readers. (4) The set to read for the main idea produced the highest comprehension for both the advanced and retarded readers. (5) Both groups responded to the set to read in their usual manner with significantly poorest comprehension.

5984

Caskey, Helen J. "Meeting Barriers to Comprehension," Vistas in Reading. International Reading Association Conference Proceedings, 11, Part 1 (1966) 248-52.

Disorganized teaching procedures and reading selections unrelated to the student's experience and beyond his skill level are seen to contribute to comprehension problems. Questions asked and the context in which students must answer them are often seen as threats to their self-esteem. Recommendations designed to break down comprehension barriers include organized teaching procedures that provide support for a student's efforts, teacher assistance in student evaluation of their individual reading difficulties, reading materials adjusted to reading levels, and vocabulary preparation and an overview of each reading.

5080

Charles, H. "A Selected Drug as Determinant in the Reading Process," Journal of the Reading Specialist, 5 (May 1966) 154-55, 170.

The use of a selected drug in treating reading problems of students with normal ability was evaluated. Twenty-two children between 9 and 13 years of age with normal intelligence and tested reading deficiencies were matched with a control group of normal intelligence and similar reading weaknesses. The Gates Reading Survey, Form I, was administered to all subjects. The experimental group received three 100 mg tablets of Deanol daily for a 3-week period. After the initial period one 100 mg tablet of Deanol was administered daily for 12 weeks. Identical

instruction in reading skills was given to both groups. At the end of the 15-week period, the Gates Reading Survey, Form II, was administered to both groups. Analysis of variance was used to determine changes in reading in the various areas. Significant differences in rate of reading were found. Positive but not statistically significant changes were found on the comprehension and vocabulary subareas of the Gates Reading Survey. References and a table are included.

6676

Cohen, Dorothy H. Effect of a Special Program in Literature on the Vocabulary and Reading Achievement of Second Grade Children in Special Service Schools. 188 p. (CRP-S-254, BR-5-8034, New York University, New York, 1966) ED 010 602, microfiche \$0.75, hard copy \$9.40 from EDRS.

A special program of literature and accompanying activities was introduced into the curriculum of disadvantaged second-grade children to cause significant measurable improvement in their vocabulary and reading achievement. Seven special-service elementary schools in New York City provided the research setting. At the beginning of the research, 580 second-grade children were administered the free association vocabulary test and the Metropolitan Reading Achievement Test, Upper Primary, Grade 2. Experimental and control classes were set up on a random basis. For the experimental classes, teachers were asked to read a story every school day from specially selected books. These stories were introduced in an order of increasing difficulty and were each accompanied by followup activities designed to enhance comprehension. Stories read to the control classes were introduced only as an occasional treat and followed no specified pattern. Post-tests administered at the end of the academic year yielded suitable data from 285 pupils. Analyses of covariance led to the conclusion that oral language correlates with reading, and both can be significantly improved by regular exposure to stories read aloud. One of the implications of the research was that teachers, especially teachers of the disadvantaged, must be familiar with children's literature suitable to the age and stage of development of the children they are teaching.

6142

Coulter, Myron L. "Changing Concepts of Reading Instruction in the Content Areas in the Intermediate Grades," Changing Concepts of Reading Instruction. International Reading Association Conference Proceedings, 6 (1961) 35-38.

The teaching of reading skills and of subject matter are seen as inseparably related. Special attention given to reading skills in the content areas results in significant gains in achievement. Common and unique skills in the various subject areas are discussed. Differences in the quality and quantity of today's reading materials are noted, and

an increasing burden upon reading efficiency is emphasized. Reading's role in learning and the changing concept of reading in the content areas are discussed.

5430

Duffy, Rita Martin. The Effect of a Reading Improvement Program on the Reading Comprehension of Second Grade Boys Attending the Double-Sessioned Classes in the Painedge Public Elementary Schools, Bethpage, New York. 126 p. (Ed.D., New York University, 1963) Dissertation Abstracts, 25, No. 2, 961-62. Order No. 64-6530, microfilm \$2.75, xerography \$6.20 from University Microfilms.

The implementation of an administrative plan to provide additional instruction time for children attending double sessions and the effect of a reading improvement program, utilizing the additional instruction time, on the reading comprehension of a selected group of second-grade boys were investigated. In the findings related to the administrative plan, the author concludes that the implementation of an administrative plan to provide additional instruction time for double-session children was successful. Following a comparison of pretest and post-test results on the Gates Primary Reading Test, the author states that the tests showed no significant improvement in the reading comprehension of the group of selected second-grade boys who participated in the reading improvement program.

Elkind, David and Deblinger, Jo Ann. Reading Achievement in Disadvantaged Children as a Consequence of Non-Verbal Perceptual Training. Final Technical Progress Report. 20 p. (OEC-1-7-06881-0381, Rochester University, 1968) ED 021 704, microfiche \$0.25, hard copy \$1.10 from EDRS.

The theoretical orientation based on perceptual development, proposed by Piaget in 1961, is the starting point of this investigation. According to Piaget, the perception of the young child is "centered" on dominant aspects of the field. With maturity, perception becomes "de-centered" and progressively freed from the field. The visual training materials used in this experiment were designed with this principle in mind. The hypothesis that training in perceptual activity would improve reading skills was proposed. Sixty second-grade Negro children attending an inner-city school in Rochester were matched in perceptual activity and reading achievement and split into a control group and an experimental group. The control group studied from a commercial reading program (The Bank Street Readers), while the experimental group was trained with the series of nonverbal perceptual materials noted above. The experimental group made significantly greater progress in word form and word recognition than the control group. However, with regard to "Meaning of Opposites," they did less well. This seems to indicate that non-verbal perceptual training did not affect reading comprehension. References are included.

6793

Evans, Laura Katherine. The Influence of a Definite Procedure for Teaching Spelling During Creative Writing on Reading Comprehension, Word Recognition, and Spelling. 183 p. (Ed.D., University of Maryland, 1965) Dissertation Abstracts, 27, No. 1, 137-A. Order No. 66-3079, microfilm \$3.00, xerography \$8.40 from University Microfilms.

The effect of imparting spelling instruction as needed during creative writing was investigated in relation to reading comprehension, word recognition, and spelling. Eight second-grade classes, randomly selected from a list of schools having individualized reading programs, participated in the study for a period of 16 weeks. Diagnostic Reading Tests and spelling tests developed from the Iowa Spelling Scales were administered prior to and after treatment. The experimental group spent $\frac{1}{2}$ hour each day in creative writing. During this time, individualized spelling instruction was given. No difference in reading comprehension was found after treatment, but spelling achievement was significantly higher in favor of the control group receiving regular group spelling lessons. The evidence supported the systematic teaching of spelling.

5451

Fledderjohann, William Clarence. A Study of Some Relationships of Visual and Auditory Perception to Reading Comprehension. 60 p. (Ed.D., University of California, Los Angeles, 1965) Dissertation Abstracts, 26, No. 9, 5227-28. Order No. 66-227, microfilm \$3.00, xerography \$3.00 from University Microfilms.

The relationships of visual and auditory perception to reading comprehension were investigated. Third-grade subjects were selected, and those pupils below 90 on the CTMM or below a grade score of 2 years, 5 months on the CAT were excluded. A pretest consisting of half visual comprehension and half auditory comprehension was given to all subjects. The subjects were divided into four groups: auditory, bisensory, visual, or control. The auditory group received auditory training through taped lessons in comprehension, and the bisensory group alternated between the auditory training and visual training. The comprehension lessons were read by the visual group. After an experimental treatment of 4 weeks, a post-test identical to the pretest was given. An analysis of covariance was computed using intelligence scores and pretest results as covariates. The following results were found: the auditory group's visual mean score significantly exceeded the control's; the visual group's auditory score significantly exceeded the control's; and the bisensory training group did not achieve statistically superior results. The auditory group outscored the bisensory group on both tests, and the visual group outscored the bisensory group in visual comprehension. It was concluded that transfer of skill does occur in relation to language comprehension from auditory to visual perception and from visual to auditory perception in third-grade children.

5453

Foster, Thomas Gray. An Investigation of the Suitability of Six Reading Selections Designed for Sixth-Grade Pupils. 170 p. (Ed.D., Wayne State University, 1960) Dissertation Abstracts, 22, No. 1, 123-24, microfilm \$2.75, xerography \$7.80 from University Microfilms.

A committee of teachers and assistant principals constructed six reading selections for sixth-grade children to determine whether teachers with limited writing experience could produce curriculum materials for a specific grade. The selections were evaluated in terms of reading level, content interest, and comprehensibility. Readability formulas indicated that four of the six selections were within the desired reading range, with one slightly above and one slightly below the desired range. Four of the six selections were completely acceptable on the basis of children's interests; two had relatively low interest levels. Comprehension of the selections ranged from satisfactory to excellent. The author concluded that with some modification the materials are suitable for sixth grade and that teachers are capable, at least in this instance, of coming reasonably close to the mark in writing for sixth-grade pupils.

5464

Gaudette, R. Dean. A Comparison of Three Different Methods of Teaching Reading in the Elementary School. 63 p. (Ed.D., Washington State University, 1965) Dissertation Abstracts, 26, No. 1, 221-22. Order No. 65-7700, microfilm \$3.00, xerography \$3.60 from University Microfilms.

Three different reading techniques at the third- and fifth-grade levels were studied to determine their effect on reading comprehension. The methods compared were Science Research Association's Multi-Level Readers, primary level Ic and elementary level Iib, a Controlled Reader program, and a Developmental Reading Approach. Forty Spokane, Washington, public school fifth-grade teachers were randomly selected from volunteers, and 40 third-grade teachers were randomly selected by schools. Twelve hundred students in the third and fifth grade completed the study. The experimental period was 120 days, with a 45-minute reading period each day at the fifth-grade level and a 75-minute reading period each day at the third-grade level. The teachers were given 6 hours of training in the various techniques to be used in the study. A test was administered prior to and after each 40-day period. A comparison of gains was made using each technique with an analysis of variance. No significant difference was found between any of the techniques compared with the control group. Scores indicated a Hawthorne effect which caused a progressive decrease in gains with each period of the study.

Graham, Robert J. The Impact of PL 89-10 Title I Activities on the Reading Competence of Elementary and Secondary School Learners. Final

Report. 119 p. (OE-6-99-162, OEC-6-99-162, Pennsylvania State University, University Park, 1968) ED 020 862, microfiche \$0.50, hard copy \$6.05 from EDRS.

An evaluation of ESEA/Title I reading programs' impact in the Northern Appalachia area (Maryland, Ohio, Pennsylvania, and West Virginia), this report studies 1,429 fourth and seventh graders in 16 school districts. After federal funding was approved, major barriers to initiating remedial reading programs proved to be (1) attracting qualified teachers and (2) finding adequate space. Once projects in local districts were planned and approved, professors and research assistants used pretesting and post-testing with Gates Reading Survey and an attitude inventory, plus observation-interview visits, and a materials inventory to assess 16 selected projects. Findings included 4 months' average gain in total reading ability, with some dramatic increases in Speed and Accuracy subtest areas and modest progress in Vocabulary and Comprehension. Fourth-grade reading attitudes changed significantly; seventh-grade pupils' feelings about reading were difficult to alter. Considerable progress was realized in improving students' self-image. Teachers were predominantly untrained in remedial reading; and instruction--in contrast to materials development--was primarily conventional. Effective use of teacher aides but basically ineffective involvement of communities and families were noted; although, two projects achieved exceptional success in the latter area. The general impact of Title I projects upon reading competencies was judged substantial for youngsters not previously able to make "normal" progress.

6823

Griffin, Vernon Haywood. A Study Designed to Investigate Some Aspects of Forced Increase in Rate of Reading on the Reading Comprehension of a Selected Group of Fifth-Grade Pupils. 206 p. (Ed.D., University of Houston, 1966) Dissertation Abstracts, 27, No. 9, 2729-A. Order No. 67-2030, microfilm \$3.00, xerography \$9.45 from University Microfilms.

The following two major questions were considered: (1) Can the rate of reading of fifth-grade pupils be increased by applying selected teaching procedures? (2) How will these teaching procedures influence the comprehension level of the pupils involved? The members of the experimental and control groups included 23 girls and 13 boys who were matched on the basis of sex, age, reading achievement, and intelligence. The groups were above average in intelligence. The experimental group made a significant gain in rate over the control group. Comprehension was not adversely influenced by the increase in reading rate. The purpose for reading tended to determine the rate. Teacher-made tests could be constructed to aid in evaluating pupil progress in reading rate. The procedures used in this study contributed to the success in rate acceleration of the experimental group. The rate of reading was increased significantly without the use of machines. The results of this study supported the recommendation that selected fifth-grade pupils who

demonstrate proficiencies in the ability to read at or above grade level should be exposed to rate development instruction.

6652

Guszek, Frank J. Relations Between Teacher Practice and Knowledge of Reading Theory in Selected Grade School Classes. 127 p. (CRP-S-437, University of Wisconsin, Madison Campus, School of Education, 1966) ED 010 191, microfiche \$0.50, hard copy \$6.35 from EDRS.

The problem of this research was to investigate the relations that might exist between teacher knowledge of and practices in the development of reading comprehension. Preliminary to the development of specific research questions was a series of general questions grouped under these main categories: (1) teacher knowledge of comprehension theory, (2) teacher practices in comprehension development, and (3) relations between teacher knowledge and practices. Five test instruments were involved in the study: (1) reading comprehension theory test, (2) reading comprehension solicitation-response inventory, (3) congruence-incongruence dimension, (4) solicitation-response unit, and (5) solicitation-response episode. The sample consisted of second-, fourth-, and sixth-grade teachers drawn at random from 16 elementary schools in San Angelo, Texas. The study results are presented in terms of comprehension theory, comprehension development, and the relations between knowledge and practice. Implications are made for preservice and inservice teacher education.

6825

Guszek, Frank James. A Study of Teacher Solicitation and Student Response Interaction about Reading Content in Selected Second, Fourth, and Sixth Grades. 228 p. (Ph.D., The University of Wisconsin, 1966) Dissertation Abstracts, 28, No. 3, 1000-A. Order No. 66-9146, microfilm \$3.00, xerography \$10.35 from University Microfilms.

Three consecutive reading lessons in four classes each of grades 2, 4, and 6 were tape-recorded and subsequently analyzed to determine teacher solicitation-student response congruence and interaction patterns. The single solicitation followed by a congruent response was the most dominant pattern in all grades and groups; only infrequently did teachers combine solicitation-response units into larger patterns. Teacher solicitation activities were most concerned with literal comprehension responses as evidenced by the 73 percent cluster found in the combined recognition and recall categories. The remaining categories in order of decreasing incidence were evaluation, explanation, conjecture, and translation. Recall solicitations were most frequent in the second grade; conjecture and explanation activity were higher in the upper grades. It was concluded that students were programmed to respond in such a manner that only a limited portion of their thinking abilities was activated.

7180

Guszek, Frank J. "Teacher Questioning and Reading," The Reading Teacher, 21 (December 1967) 227-34.

An evaluation of reading-thinking skills development at the second-, fourth-, and sixth-grade levels is presented. Four teachers and their students at each of these levels were observed and recorded over a 3-day period. The study sought to answer three basic questions: (1) "What kinds of thinking questions do teachers ask about reading assignments, and in what frequencies are they asked?" (2) "What types of answers are given?" and (3) "Are certain questioning strategies employed by teachers?" The study revealed that about 70 percent of the questions that teachers ask are of a literal nature, many of which involve the retrieval of the trivial makeup of stories. Students are seen as being sensitive to "what teachers want" and as learning quickly to parrot back an endless collection of trivia. The teachers' role in developing thinking students is emphasized. References are included.

5480

Hafner, Lawrence Erhardt. An Experimental Study of the Effect on Various Reading Achievement Scores of Teaching Selected Context Aids to a Group of Fifth-Grade Pupils. 137 p. (Ed.D., University of Missouri, 1960) Dissertation Abstracts, 21, No. 12, 3714. L.C. Card No. Mic 60-6806, microfilm \$2.75, xerography \$6.60 from University Microfilms.

The California Test of Mental Maturity, the SRA Reading Test, and an author constructed Comprehension X test were used in evaluating the effects on reading achievement in teaching fifth-grade pupils the nature and use of selected context aids. Analysis of covariance, "t" tests, and Chi square were used to evaluate the effect of teaching contrast, explanatory words and phrases, and two inferential aids for three 35-minute periods per week for 4 weeks. Intellectual and reading ability were controlled for experimental and control groups. No significant differences were found for the major null hypotheses between the experimental and two control groups on reading comprehension, vocabulary in context, average reading, and context comprehension scores. Though no significant differences were found, there is a suggestion that in the area of vocabulary in context achievement the teaching of context aids would be most productive. Analysis of scores of children who were similar in intelligence and background of experience showed that those who received instruction in context aids made greater gains in comprehension than children who had not received instruction.

5138

Hafner, Lawrence E. "A One-Month Experiment in Teaching Context Aids in Fifth Grade," Journal of Educational Research, 58 (July-August 1965) 472-74.

A study to determine the effect of an experimental program consisting of lessons in the use of selected context aids on tests measuring reading comprehension, vocabulary-in-context, and context comprehension is described. The subjects were three groups of fifth graders: Experimental--25 pupils, Control I--24 pupils from the same school, Control II--26 pupils from another school. Data were obtained from the California Test of Mental Maturity (Elementary, 1957 Edition, Long Form), SRA Achievement Series 4-6 (Forms A and B of Test 2), and two forms of a Comprehension "X" Test (a modified cloze test developed by the experimenter). The experimental group was given training in context aids to meaning, including contrast, explanatory words and phrases, and inferences. Training was done in three 35-minute periods per week for 4 weeks. Although a comparison of the pretest and post-test scores did not significantly differentiate between the experimental and the control groups, it was concluded that the teaching of context aids would be most productive in the area of vocabulary-in-context achievement. Tables and references are included.

Hahn, Harry T. A Study of the Relative Effectiveness of Three Methods of Teaching Reading in Grade One. 84 p. (CRP-2687, Oakland County Schools, Pontiac, Michigan, 1965) ED 010 644, microfiche \$0.50, hard copy \$4.20 from EDRS.

The relative effectiveness of three approaches to beginning reading was studied. The three approaches were (1) Pitman's Initial Teaching Alphabet Approach (ITAA), (2) a modified Language Arts Approach with traditional orthography (LAA), and (3) a Basic Reader Approach (BRA). Two interrelated problems were also treated in this study--(1) the effectiveness of the ITAA which was designed to provide a simple and more reliable alphabet for children and (2) the importance of focusing attention on children's own thoughts and ideas to develop self-confidence in reading. The study was conducted in 13 school districts in Michigan, with each district divided into three sections, each using one approach. The students were pretested and after 140 days of instruction were post-tested, and the treatments were compared. Interpretation of the test results showed that no one approach was consistently superior. There were, however, different levels of accomplishment among the three approaches--(1) ITAA and LAA children developed larger reading vocabularies and more effective use of their potential of word analysis; (2) LAA children made more effective use of their intelligence in paragraph comprehension; (3) ITAA children developed a broader range of skills for recognizing isolated words; and (4) LAA and BRA children were better spellers. The investigator concluded that, while a final, positive evaluation of ITAA could not be drawn from this study, the emphasis on starting with thoughts and ideas of children did produce eager learners in the classroom.

6146

Hill, Margaret Keyser. "Reading in the Content Fields," Combining Research Results and Good Practice. International Reading Association Conference Proceedings, 11, Part 2 (1966) 36-38.

Conclusions from 12 research studies relating to reading in the content fields are presented. Selected factors in reading comprehension are discussed. Responses of elementary school children to common types of reading comprehension questions, the use of the cloze procedure for improving reading comprehension, and the development of concepts and their verbal representations are investigated. Additional comprehension-related topics and references are included.

6847

Holland, Ruth Esther. The Effect of a Modified Linguistic Approach of Teaching Spelling upon Reading Achievement. 163 p. (Ed.D., Indiana University, 1967) Dissertation Abstracts, 28, No. 10, 3889-A. Order No. 68-4728, microfilm \$3.00, xerography \$7.60 from University Microfilms.

The effect of a modified linguistic approach to spelling on the reading achievement of primary children was investigated. Data were obtained from test scores of 32 pairs of second- and third-grade pupils and were matched according to sex, intelligence, chronological age, and reading achievement level. Results of post-tests indicated no evidence to prove that a modified linguistic approach to word study improved reading comprehension skills or significantly increased spelling achievement or that providing the beginner in spelling and reading with words which follow regular spelling patterns would insure spelling and reading success. Specific recommendations for future studies are made.

4898

Hollingsworth, Paul M. "Can Training in Listening Improve Reading," The Reading Teacher, 18 (November 1964) 121-23, 127.

A review of the research concerning the interrelationship between listening and improvement of reading is presented. A number of articles are summarized, and references to other writings on the topic are made. It was concluded that many of these research reports show that reading abilities can be improved through the improvement of listening abilities. References are included.

7205

Hunkins, Francis P. "The Influence of Analysis and Evaluation Questions on Achievement in Sixth Grade Social Studies," Educational Leadership -

Journal of the Association for Supervision and Curriculum Development,
25 (January 1968) 326-32.

This study sought to determine whether the use of text-type materials requiring analysis and evaluation would result in differences in sixth graders' social studies achievement when compared with the use of text-type materials requiring recall of knowledge. Subjects were 260 sixth-grade pupils enrolled in 11 classes in three elementary schools. Classes were randomly assigned to one of the two experimental treatments. Background data were collected with the California Test of Mental Maturity, S Form, and the Stanford Achievement Test, Form W. IQ was eliminated as a possible covariant. No significant difference between reading achievement for the two groups was noted. A criterion test of social studies achievement was constructed. Reading level of both sets of experimental instructional materials was controlled. Differences in the backgrounds of teachers of the two groups were examined. Analysis of covariance was used. Conclusions were (1) the employment of high cognitive-level questions produced significantly higher scores, and (2) better readers in both treatments achieved better than did poorer readers. References are included.

6072

Kerfoot, James F. "Comprehending Comprehension," Improvement of Reading Through Classroom Practice. International Reading Association Conference Proceedings, 9 (1966) 74-76.

Areas of confusion, critical problems, and recommendations are presented. The use of varied terminology by authors of reading textbooks is seen as one area of confusion. Differences in tests of reading comprehension which purport to measure a particular ability and ambiguity of goals in comprehension instruction are seen as two additional areas of confusion. Critical problems in reading comprehension include ambiguities in research interpretation and the selection and matching of comprehension materials and tests. Defining comprehension is seen as an important step toward the elimination of confusion. Recommendations include operationally defining comprehension and reevaluating the accumulated research data on reading comprehension.

Koenke, Karl. The Effects of a Content-Relevant Picture on the Comprehension of the Main Idea of a Paragraph. Report from the Reading Project. 41 p. (OEC-S-10-154, Wisconsin University, Madison, 1968)
ED 024 540, microfiche \$0.25, hard copy \$2.15 from EDRS.

The importance of content-relevant pictures in the comprehension of the main idea of a paragraph was investigated. Various reading conditions were constructed which contained a paragraph, a picture, or both, each with three types of instructions. In addition, the effects

of paragraph readability, student grade placement (grades 3 and 6), and sex were examined. An analysis of variance of the main idea responses to the pictures showed that in general there were no significant differences between boys and girls or between third and sixth graders. Responses to one picture were better than responses to the other two, but only for sixth-grade subjects. The analysis of variance of ratings of the responses to the paragraphs with/without pictures and directions did not affect the adequacy of main idea responses. Although both readability and grade effects were significant, post hoc analyses showed that reading basic paragraphs led to significantly better main idea responses only among the sixth graders and that the significantly higher boys' mean accounted for the difference.

5530

Koester, Paul William. Reading Science Materials for Two Specific Purposes at the Sixth Grade Level. 223 p. (Ed.D., University of Illinois, 1961) Dissertation Abstracts, 21, No. 12, 3717. L.C. Card No. Mic 61-1631, microfilm \$2.90, xerography \$10.15 from University Microfilms.

Fifty sixth graders were equated on the basis of intelligence test scores, divided into two groups, and administered tests of reading, science, and ability to read for problem-solving in science. Author-constructed tests which measured purposeful reading of science materials and author-constructed checklists which recorded the students' self-perceived reading behavior and their perception of an ideal reader's behavior were also used. One group read to understand step by step directions; the other read to find the best explanation for an event. Passages were followed by two multiple-choice items. Correlations, percentages, and "t" tests were used to check differences in reading time, relation between the tests and the standard reading scores, and the check list responses. Purposes in reading were found not to affect rate; fast readers were not necessarily the best comprehenders; and high nonverbal intelligence scores tended to have high comprehension scores, but intelligence did not predict rate. Those with high science scores on the standardized measures tended to achieve best on the constructed purposeful reading science test, but not when rate was measured. Readers who excelled on one test of comprehension tended to excel on others. Readers who scored high on comprehension might not score high on rate. Readers who read rapidly for one purpose might not read rapidly for other purposes. Purpose did seem to have some effect on rate strategy. Sixth graders tended to manifest rigidity in reading irrespective of purpose. Confusion as to what constitutes an effective, purposeful reading pattern was also evidenced, with superior readers being less sure of the pattern than inferior readers.

6879

Lamana, Peter Anthony. A Study of the Development of Certain Language Skills of Third-Grade Children Who Experienced Different Approaches to

Reading Instruction in the Primary Grades. 148 p. (Ed.D., Lehigh University, 1967) Dissertation Abstracts, 28, No. 5, 1733-A. Order No. 67-14,943, microfilm \$3.00, xerography \$7.00 from University Microfilms.

The development of certain language skills of four groups of third-grade children experiencing different approaches to reading instruction in the primary grades was studied. The following approaches were used: group 1-Initial Teaching Alphabet, group 2-basal readers supplemented with a list of phonograms, group 3-basal readers only, and group 4-basal readers supplemented with phonics. The investigation was structured to determine difference among the four groups in (1) word recognition, (2) word meaning, (3) reading comprehension, (4) the number of running words used in written composition, (5) the number of words used in written composition, (6) the number of different polysyllabic words used in written composition, and (7) the number of different spelling errors in written composition. Only the differences in the number of running words, different words, and polysyllabic words (all favoring group 1) were both statistically significant and large enough to be of practical importance. Differences in reading skills were significant in favor of group 3 but not large enough to be of practical value. It seemed that incorporating a unified language arts program was more important than the approach used in teaching reading in the primary grades.

6881

Landry, Donald Lyle. The Effect of Organizational Aids on Reading Comprehension. 174 p. (Ph.D., The University of Connecticut, 1966) Dissertation Abstracts, 27, No. 10, 3228-A. Order No. 67-3898, microfilm \$3.00, xerography \$8.00 from University Microfilms.

The study determined the extent to which organizational aids affect reading comprehension and retention. Sample groups used one of four form selections: (1) Form A, containing no organizational aids; (2) Form B, identical to A, with the addition of an introductory section containing questions of problems relating to the content of the selection; (3) Form C, identical to B, with the addition of a summary statement added to the end of the selection; or (4) Form D, identical to C, with the addition of center heads and side heads at appropriate points in the selection. Students read the selections and took an immediate retention test. Seven days later, they took another retention test. Conclusions showed that the organizational aids incorporated into the study had no significant effect on the reading comprehension and immediate recall, on the delayed recall, or on the immediate or delayed recall of major concepts or details.

5541

Langer, John Henry. A Comparison of the Effects of Three Types of Vocabulary Development on the Reading Comprehension and Thinking Ability

of Sixth Grade Children. 305 p. (Ed.D., Wayne State University, 1965) Dissertation Abstracts, 26, No. 9, 5296. Order No. 66-1241, microfilm \$3.00, xerography \$13.75 from University Microfilms.

Three types of vocabulary studies in context were used to determine which would be most effective in the development of reading comprehension and to determine if Group A would gain in thinking ability as defined and measured by a standardized test of intelligence. Group A studied multiple-meaning, abstract words, and processes of definition drawn from semantic theory; Group B studied important words chosen by the teachers from the social studies textbook; Group C studied key words in special "World Book Encyclopedia" reprints. Three groups of sixth graders participated in the 17-week study which included three periods per week. The Durrell-Sullivan Tests of Vocabulary and Reading Comprehension and the Lorge-Thorndike Intelligence Test were used for evaluation. All three approaches resulted in significant improvement in vocabulary skills, with no significant difference among the groups. By comparison, less improvement was made in comprehension skills. However, all three groups improved significantly in reading comprehension. Only the lower third of Group A which studied multiple-meaning words improved significantly in thinking ability. Additional conclusions and recommendations are included.

6891

Liddicoat, Elizabeth K. A Comparative Study of Beginning Reading Achievement after One Year of Instruction When Two Different Alphabets Are Used. 98 p. (Ed.D., Lehigh University, 1966) Dissertation Abstracts, 27, No. 5, 1266-A. Order No. 66-11,826, microfilm \$3.00, xerography \$5.00 from University Microfilms.

Differences in reading achievement in the skills of word recognition and comprehension between two matched groups of children instructed in different media were compared. The Initial Teaching Alphabet (i/t/a) and traditional orthography (t.o.) were used. Attitudes of parents, teachers, and children toward reading were examined. Subjects were 168 pairs of children matched on intelligence, sex, and socioeconomic status. All 30 classes used a basal reader program with language arts orientation. The Stanford Achievement Test and the San Diego Inventory of Reading Attitude were administered. The experiment lasted 140 days. Chi square and z were used to analyze the data. There was a significant difference in word recognition in favor of the i/t/a group. There were no significant differences between the groups in comprehension. There was no significant difference in attitude toward reading between the groups. As estimated by parents, children in the i/t/a group took library books home more often. There were more parents pleased when their children were taught with i/t/a. According to the teachers, more children in i/t/a classes chose to read in their free time.

6893

Lieberman, Janet Elaine. The Effect of Direct Instruction in Vocabulary Concepts on Reading Achievement. 161 p. (Ph.D., New York University, 1965) Dissertation Abstracts, 27, No. 4, 960-A. Order No. 66-9507, microfilm \$3.00, xerography \$7.60 from University Microfilms.

The effects of teaching vocabulary concepts by direct experience and by conventional instructions on reading achievement and on concept achievement were evaluated in two fifth-grade classes. Forty-two students ranging in IQ from 100 to 150 were matched according to sex and intelligence and were randomly distributed between control group and experimental group. The Iowa Reading Test was used to evaluate reading achievement, and a Concept Achievement Scale was used to rate subjects prior to the experimental treatment. Both groups made significant progress in reading achievement and in concept achievement. However, the experimental group made considerably higher gains in concept achievement than the control group did. It was concluded that the experiential method of teaching vocabulary increased the level of conceptual achievement. Moreover, conceptualization could be taught as a separate skill in vocabulary and comprehension.

6895

Lillich, Joseph Michael. Comparison of Achievements in Special Reading Classes Using Guidance, Skills-Content, and Combination Approaches. 285 p. (Ed.D., Ball State University, 1967) Dissertation Abstracts, 28, No. 6, 2139-A. Order No. 67-12,302, microfilm \$3.70, xerography \$12.85 from University Microfilms.

Three hundred and sixty children from grades 4, 5, and 6, reading 1 or more years below their grade levels, took part in a study that determined the effectiveness of three approaches to improving reading achievement: a guidance approach, a skill-content approach, and a combination approach. The guidance approach identified factors of emotional and social adjustment and provided special activities designed to aid pupil growth. The skill-content approach involved activities designed to develop an expanded sight vocabulary, better comprehension, and word analysis skills. The combination approach combined the guidance and the skill-content approaches. Results on the California Reading Test, the Gray Oral Reading Test, and a special reading teacher rating scale favored the guidance approach over the combination approach and the combination approach over the skill-content approach. The results indicated that focusing on guidance provided experiences for pupils in special reading classes which led to initially higher performance on reading achievement tests. The author suggested that the initial "freedom to try," fostered by the guidance approach, could be profitably followed by the direct teaching of reading to the child, possibly through a combination approach.

5552

Lindeman, Carol Ann. Concept Attainment and Reading Ability: The Effects of Selected Variables upon Information Processing by Fifth-Grade Children. 73 p. (Ph.D., The University of Wisconsin, 1964) Dissertation Abstracts, 25, No. 4, 2350. Order No. 64-10,263, microfilm \$2.75, xerography \$4.00 from University Microfilms.

A 24 factorial design, nested within a 3x2 factorial design, was used to investigate the effects of four stimulus variables and two stratifying variables in an information processing task. The four stimulus variables were: (1) exemplar or nonexemplar focus card, (2) exemplar or nonexemplar second information bearing card, (3) amount of information, and (4) verbal or figural stimulus material. The stratifying variables were reading ability and sex. Forty-two fifth-grade children were used as subjects. Four conclusions were stated by the author: (1) Problems for which a definite "yes" or "no" answer was correct were easier than those for which an "indeterminate" answer was correct. (2) An exemplar focus card with problems for which a definite "yes" or "no" answer was correct resulted in the greatest number of correct responses. (3) A mixed series--i.e., one exemplar and one non-exemplar information bearing card--resulted in more accurate processing of information than did either two exemplars or two nonexemplars. (4) No significant relationship was shown between reading ability and information processing.

6903

McCanne, Roy. A Comparison of Three Approaches to First-Grade English Reading Instruction for Children from Spanish-Speaking Homes. 291 p. (Ed.D., University of Denver, 1966) Dissertation Abstracts, 27, No. 6, 1713-A. Order No. 66-11,776, microfilm \$3.75, xerography \$13.30 from University Microfilms.

A comparison was made of a modified basal reader approach, a modified teaching English as a second language approach, and a modified language-experience approach in respect to their relative success in developing reading vocabulary, word study skills, and reading comprehension skills with 333 children from Spanish-speaking homes. The materials used were new to the teachers who were assigned at random to the three experimental approaches. The approaches were used for 140 school days. The basal reader approach was more successful than the other two approaches in the development of reading comprehension skills, reading vocabulary, and word study skills.

McKee, Paul and Brzeinski, Joseph. The Effectiveness of Teaching Reading in Kindergarten. 146 p. (BR-5-0371, Denver Public Schools, 1966) ED 010 058, microfiche \$0.75, hard copy \$7.40 from EDRS.

This study investigated the effectiveness of beginning the teaching of reading in kindergarten. The longitudinal effects as well as the initial results were examined. The progress of the children in the study was followed from the kindergarten through the fifth grade. The sample consisted of 4,000 kindergarten pupils randomly assigned by the school to comparable control and experimental groups. Instructions were similar except for one major difference. The experimental group received planned, sequential instruction in beginning reading, while the control group had activities which developed reading readiness. The principal statistical technique was analysis of variance-covariance technique. The primary variable considered was the time of beginning reading. Other variables were mental age, chronological age, sex, IQ, and family characteristics. These latter variables were also used as covariates. Comparisons were made on the criterion variable (reading achievement) between experimental and control groups, and effects of other variables were studied in the same way. Analysis of variance allowed computation of the interaction between variables. In every case, attention was given to the interaction of the treatment variable (time of beginning reading) with the other variables in determining the effect of the criterion variable (reading achievement). Optimum reading achievement was obtained by boys and girls who received the experimental beginning reading instruction in kindergarten and who had an adjusted reading program in later grades. Such adjustment was necessary for the measurable advantages of early reading instruction to be preserved beyond the second grade. When the advantages of an early start in reading were followed up, statistically significant gains in reading achievement persisted throughout the entire study.

7269

Merritt, James. "A Study of Sixth Graders' Comprehension of Specially-Prepared Materials on Broad Social Conflicts," The Journal of Educational Research, 61 (March 1968) 328-33.

A set of stories and an accompanying test were developed to assess sixth graders' comprehension of social conflict. The test, consisting of 125 multiple-choice items, measured comprehension of concepts, opinions, reasons and motives, generalizations, rights and duties of groups and group members, and analogous situations. The sample consisted of 481 sixth graders; and for comparative purposes, nine fifth-grade classrooms, seven seventh-grade groups, and seven ninth-grade classes. The children were from a Midwestern county in Illinois and a metropolitan area, and they represented a wide range of socioeconomic groups and scholastic abilities. Seventy-nine percent of the sixth graders succeeded on half or better of the test items. Comprehension increased sharply from the fifth to the sixth grade, but only gradually above the sixth. In light of the successful reading and the generally high interest shown, the conclusion is that such materials could be a part of the sixth-grade curriculum. References and tables are included.

5576

Merson, Edna Mae. The Influence of Definite Listening Lessons on the Improvement of Listening and Reading Comprehension and Reading Vocabulary. 267 p. (Ed.D., University of Maryland, 1961) Dissertation Abstracts, 22, No. 9, 3120-21. Order No. 62-208, microfilm \$3.45, xerography \$12.15 from University Microfilms.

Forty-five planned lessons in listening comprehension were utilized to determine the effect of a program in listening upon the listening comprehension, the reading comprehension, and the reading vocabularies of fourth-grade pupils. Analysis of variance indicated that all treatment classes were comparable (prior to treatment) on listening comprehension, language and nonlanguage ability, reading comprehension, and reading vocabulary. Results of the study indicated that mean listening comprehension improved significantly, while mean difference in reading comprehension and reading vocabulary were not significantly different. The effectiveness of the treatments appeared approximately the same for each of the three ability levels considered. The author concluded that planned listening lessons had a positive and significant effect on the listening comprehension of four fourth-grade pupils.

6930

Montesi, Richard Lewis. A Comparison of the Effects of the Initial Teaching Alphabet and Traditional Orthography on Achievement in Beginning Reading. 193 p. (Ph.D., The University of Connecticut, 1967) Dissertation Abstracts, 28, No. 8, 2905-A. Order No. 68-1382, microfilm \$3.00, xerography \$8.80 from University Microfilms.

The effects of the Initial Teaching Alphabet (i/t/a) and traditional orthography (t.o.) on achievement in beginning reading were compared. Measured achievement areas were word recognition, paragraph comprehension, word study skills, and oral reading. Subjects were divided into two treatment groups equated on the basis of IQ, reading readiness scores, chronological age, and sex. Complete data were gathered on 200 cases in May 1966, and 174 cases in May 1967. The t-test was used to evaluate mean differences in performance between the two groups and to study subgroup results. Findings indicated that in word recognition, there was a significant difference favoring the i/t/a group at the end of grade 1 but none at the end of grade 2. In paragraph comprehension and word study skills, there was no significant difference between the two groups for either grade 1 or 2. In oral reading (accuracy and comprehension), there was a significant difference favoring the i/t/a group at the end of grade 1 but none at the end of grade 2. Neither medium of instruction was superior for any particular ability group, and neither medium allowed children to make better use of their learning potential and prereading capabilities than the other.

6935

Movsesian, Edwin Ara. The Influence of Teaching Music Reading Skills on the Development of Basic Reading Skills in the Primary Grades. 213 p. (Ed.D., University of Southern California, 1967) Dissertation Abstracts, 28, No. 8, 3078-A. Order No. 68-1199, microfilm \$3.00, xerography \$9.70 from University Microfilms.

The influence of teaching specific music reading skills on the development of reading vocabulary and comprehension skills and on the elimination of oral reading errors was investigated. The t-test was applied to data obtained from the California Achievement Tests, the Gray Oral Reading Test, and the Survey of Primary Music Reading Development. Results indicated that first and second graders became significantly more efficient in the utilization of basic reading skills, excluding oral reading, when concurrently taught specific music reading skills; that third graders improved significantly in oral reading efficiency; that first graders became significantly more efficient in reading comprehension; and that second graders became significantly more efficient in developing reading vocabulary and comprehension. Recommendations for further research and for implementation of primary grade music reading programs are made.

6936

Myers, Dorothy Charlotte. The Effects of Letter Knowledge on Achievement in Reading in the First Grade. 178 p. (Ed.D., University of Missouri, Columbia, 1966) Dissertation Abstracts, 27, No. 8, 2449-A. Order No. 67-956, microfilm \$3.00, xerography \$8.20 from University Microfilms.

The achievement of 208 first-grade pupils was compared to determine the relative effects of three approaches to initial reading instruction. One group received initial instruction in letter names which was followed by the teaching of sight words. A second group received initial instruction in letter names and letter sounds which was followed by sight words, and a third group began with instruction in sight words followed by instruction in letter names and sounds. All groups received further instruction in the same basal reader. The experimental instruction began the second week of school and was concluded by the end of the eighteenth week. The criterion measurements for comparing the three approaches consisted of tests of word knowledge, word discrimination, and comprehension of sentences and paragraphs. Pretests of reading readiness and intelligence were used for statistical control in the analysis of covariance. It was concluded that initial instruction in letter names and letter sounds produced greater achievement in word perception than the other approaches for children with IQ's from 98 to 119. There was no difference in measured comprehension among the three approaches for any of the intelligence levels studied. Initial instruction in letter names and letter sounds appeared to be an aid chiefly to those children who were average on measures of reading readiness, while

initial instruction in letter names appeared to be of value mainly for children who were below average on measures of reading readiness.

6940

Nichols, Nancy Jane. Comparison of Three Methods of Teaching Reading in the Second Grade. 193 p. (Ed.D., Syracuse University, 1967) Dissertation Abstracts, 28, No. 11, 4540-A. Order No. 68-5514, microfilm \$3.00, xerography \$8.80 from University Microfilms.

Possible differential effects of three contrasting approaches to primary reading instruction on the achievement of pupils at the end of second grade were investigated. A basal reader approach (Ginn Basal Series), a modified linguistic approach (Singer Structural Reading Series, synthetic phonic), and a linguistic approach (Bloomfield, Barnhart "Let's Read") were the instructional treatment approaches studied. Each experimental treatment was used in seven different classrooms. Of the 467 children who took part in the first year of the study, 376 participated in the second year. Achievement was evaluated in the areas of word and paragraph reading, comprehension, reading accuracy, and reading rate. Amount of independent reading, attitude toward reading, skills in word analysis, and the related skills of spelling and written composition were also studied. An analysis of the data showed the means of the linguistic group and the modified linguistic group to be superior to the means of the basal reader group on spelling and word meaning criteria. The linguistic group was superior on oral reading comprehension. The linguistic group read significantly more books as independent reading.

Otto, Wayne, et al. Prototypic Guide to Reading Skill Development in the Elementary School. 48 p. (OEC-5-10-154, Wisconsin University, Madison, 1967) ED 016 573, microfiche \$0.25, hard copy \$2.50 from EDRS.

A prototypic guide to reading skill development in the elementary school focuses on the cognitive skills that influence achievement in reading. The guide provides explicit statements of the following skills--word recognition, comprehension, study skills, self-directed reading, interpretive reading, and creative reading--and a specific framework for teaching the reading skills. No attempt is made to describe a complete program for the developmental teaching of reading. The guide is to be tested in a variety of school settings and is considered "strictly transitory." The model exercises used to assess the skills are included.

6461

Pont, H. B. "An Investigation into the Use of the S.R.A. Reading Laboratory in Three Midlothian Schools," Educational Research, 8 (June 1966) 230-36.

An experiment to determine the effect of the SRA Reading Laboratory on the reading quotient was conducted in three Midlothian primary schools with 205 children. The participants of each school were divided into control and experimental groups matched for age and average intelligence. The Schonell R4 Silent Reading Test was given before the experiment. After 12 weeks, the same silent reading test was given along with the Moray House Verbal Reason Test 58. One of the three schools had no control group, and difficulty with the laboratory caused suspension of the lessons for 4 weeks. At the end of the 12-week period, all groups returned to normal class reading. About 7 months later, the Schonell R4 Reading Test was given again. The results indicated that all the children from both the experimental and control groups had improved their reading quotients. The improvement was not traceable to the SRA Reading Laboratory, but seemed, rather, to depend on the carrying out of the experiment itself. While engaged in the experiment, the SRA children did hold some advantage which was almost eliminated in the months that followed. It would seem that the Laboratory enables the child to reach a higher reading level more quickly and would be a profitable teaching tool for the pupil whose reading age is below his mental age.

5629

Rothrock, Dayton G. An Evaluation of Three Approaches to the Teaching of Reading. 200 p. (Ed.D., University of Nebraska Teachers College, 1961) Dissertation Abstracts, 21, No. 12, 3691-92. L.C. Card No. Mic 61-1471, microfilm \$2.75, xerography \$9.00 from University Microfilms.

Scores from the Reading Comprehension and Work Study Skills sections of the Iowa Basic Skills Tests were used to evaluate reading gains after 8 months of instruction for fourth- and fifth-grade students taught reading through (1) a developmental program, (2) an approach grouping students by reading ability, and (3) an individualized reading plan. An analysis of covariance design controlling on previous reading achievement, intelligence, and test differences between sexes was used. For fifth-grade scores, no significant differences were found between the three approaches on the Reading Comprehension gain. Significant differences were found favoring the grouping plan on the Work Study Skills gains. For fourth-grade scores, significant differences favored the grouping plan for Reading Comprehension gains and Work Study Skills gains. The individualized approach scored the second highest gains for fourth- and fifth-grade Work Study Skill scores and fourth-grade Reading Comprehension scores for the three approaches. Gains were favorable for all three approaches, and it was concluded that above-average gains could be made under any of the three approaches if proper materials and good teaching methods were used. No one of the plans produced better results for the top and bottom quartiles of students. In developing work study skills, some individualization seemed of value to slower students. An attitude survey indicated the individualized group seemed to form better attitudes toward reading and appeared to do more library reading as indicated by records of books read.

6624

Ruddell, Robert B. The Effect of Four Programs of Reading Instruction with Varying Emphasis on the Regularity of Grapheme-Phoneme Correspondences and the Relation of Language Structure to Meaning on Achievement in First Grade Reading. 194 p. (CRP-2699, OEC-SAE-2699, California University, Berkeley, 1965) ED 003 820, microfiche \$0.75, hard copy \$9.70 from EDRS.

The primary objective of the study was to investigate the effect upon word recognition and reading comprehension skills of four reading programs. These programs varied in (1) the degree of regularity of grapheme-phoneme correspondences programed into the vocabulary presented and (2) the emphasis on language structure as related to meaning. Four exploratory questions were developed to study the relationship between the independent background variables of mental age, socioeconomic status, sex, and chronological age and the dependent variables of word recognition and reading comprehension. Students from 24 first-grade classrooms were given two existing reading programs and two programs developed to meet the specific needs of this study. It was concluded that the first-grade reading programs possessing a high degree of consistency in grapheme-phoneme correspondences produced significantly higher (1) word reading, (2) word study drills, and (3) regular word identification achievement than those programs offering little provision for consistent correspondences. The need for more carefully designed longitudinal reading research studies was discussed.

6976

Saltz, Martin. A Comparative Analysis of Selected Basal Reading Series. 386 p. (Ph.D., The University of Connecticut, 1965) Dissertation Abstracts, 28, No. 9, 3383-A. Order No. 66-886, microfilm \$4.95, xerography \$17.55 from University Microfilms.

Six selected series of basal readers currently in use were analyzed to determine specific skills taught, similarities and differences in skills taught and in sequence used, amount of practice materials available for maintaining the skills, and differences in skills introduced and maintained within a grade level. One hundred and thirty-nine skills were identified, of which 28 were classified as word analysis skills, 37 comprehension and interpretation skills, 28 language skills, 42 study skills, and 4 miscellaneous skills. Only 41 of these skills were found in all six series. Greater agreement was established among the series on word analysis, comprehension, and interpretation skills than on language or study skills. Appreciable agreement was found on the proper level to introduce word analysis skills but not study skills. Readers in one series were not found to be necessarily comparable to readers at the same level in another series. Few new skills were introduced beyond grade 3. The intermediate level appeared to provide more time for the introduction and development of higher level skills than was being provided. A need to move beyond the basal reader series for necessary training not provided therein was determined.

5276

Schneyer, J. Wesley. "Use of the Cloze Procedure for Improving Reading Comprehension," The Reading Teacher, 19 (December 1965) 174-79.

The effects of the cloze procedure upon the reading comprehension of sixth-grade pupils were studied. Two null hypotheses stating that (1) practice on cloze exercises will not produce significant differences in performance on a final test in reading comprehension over pupils who did not use the exercises, and (2) there are no significant relationships between performance on cloze exercises and verbal intelligence, vocabulary, speed, comprehension, and word recognition were tested. The subjects were children in two sixth-grade classes in an elementary school near Philadelphia. Thirty-two pupils in the experimental class used a series of 200-word cloze exercises prepared by the investigator and described in the report. Thirty-four pupils in the control class did not use the exercises. All subjects participated in the regular reading program and took the California Test of Mental Maturity, Elementary Level--Short Form (1957) and the Gates Reading Survey. When the final comprehension test scores were analyzed by covariance with control of initial scores, the difference between the means of the two groups was not significant, and the first null hypothesis was accepted. Reasons for this are considered in the discussion. To test the second null hypothesis, total cloze scores were obtained for each pupil in the experimental group and correlated with factors of intelligence and reading. The performance of the experimental class on the tenth-word deletion cloze exercises was found to be significantly related to verbal ability, vocabulary, speed of comprehension, reading comprehension, and word recognition. The second null hypothesis was rejected. Tables and references are included.

Schutz, Richard. The SWRL Communication Skills Program. (OEC-4-7-062865-3073, Southwest Regional Education Laboratory, Inglewood, California, 1968) ED 018 352, document not available from EDRS.

A program in beginning reading and listening skills, including the comprehension of written and spoken language, is described. The program is designed to accomplish clearly defined instructional goals and is constantly evaluated and revised in light of actual classroom experience. Individuals from regional educational agencies, universities, and industry collaborate in the preparation of materials. Teachers are involved in all activities related to the project. Program time is divided between the acquisition of auditory and sight recognition skills and comprehension. A vocabulary of 90 regularly spelled words chosen by linguists on the basis of component sounds is used for the induction of concepts underlying phonics and spelling and for vocabulary expansion with new words of similar component sounds. The project is an ongoing experiment. This document is available from the Southwest Regional Laboratory for Educational Research and Development, 11300 La Cienega Boulevard, Inglewood, California 90304.

Sheldon, William D., et al. Comparison of Three Methods of Teaching Reading in the Second Grade. 149 p. (CRP-3231, OEC-6-10-076, Syracuse University, 1967) ED 013 713, microfiche \$0.75, hard copy \$7.55 from EDRS.

A continuation of a first-grade study of three approaches to beginning reading and of their effect on growth in comprehension and interpretation skill is reported. The basal, the modified linguistic, and the linguistic approaches were studied. Twenty-one second-grade classrooms in three central New York school districts participated in the experiment which lasted 140 days. The communities in which the experiment took place and the materials used are described. Readiness, intelligence, and achievement tests were administered. Analyses of variance and covariance were used to analyze the data. The paragraph meaning scores of the Stanford Test were not significantly different among the groups. The mean score of the linguistic group was superior on oral reading comprehension. No difference was found when written compositions were analyzed. The groups did not differ in attitudes toward reading. The treatments appeared to be equally successful for boys in both high and low ability ranges. The treatments were equally effective for girls at all three levels of ability. Additional results, conclusions, a bibliography, and an appendix are included.

5659

Skarbels, James Francis. The Effect of a Program Emphasizing Rate of Comprehension upon Rate of Reading and Comprehension at the Sixth-Grade Level. 146 p. (Ed.D., University of Maryland, 1965) Dissertation Abstracts, 26, No. 3, 1517. Order No. 65-9896, microfilm \$3.00, xerography \$7.00 from University Microfilms.

The effects of a program emphasizing rate of comprehension upon (1) rate of reading, (2) story comprehension, and (3) study comprehension were evaluated. Eight classes and 234 children were randomly selected and assigned to either control or experimental groups. Eighty students from the experimental and 80 from the control group were selected randomly to constitute the study population. Measures of intelligence were obtained with the California Test of Mental Maturity, and reading performance was measured through use of the Diagnostic Reading Tests, Survey Section: Lower Level. In the experimental group, 45 lessons from Standard Test Lessons in Reading: Book K were administered over a period of 30 weeks. The prescribed developmental reading program was followed by the control classes. Exercises emphasizing rate of comprehension at the sixth-grade level tended to result in increases in rate of reading but not in increases in comprehension of expository material. Increases in comprehension of study-type material tended to be greater for pupils who did not participate in such a program.

5664

Snavely, Eloise Alberta. The Effectiveness of Purpose Statements and Marginal Notes as Aids to Reading Comprehension. 138 p. (Ph.D., State University of Iowa, 1961) Dissertation Abstracts, 22, No. 8, 2711. Order No. 61-5611, microfilm \$2.75, xerography \$6.60 from University Microfilms.

Six 500-word articles were prepared for fourth-, sixth-, and eighth-grade students to determine whether or not purpose statements and marginal notes are of value in aiding students to organize and comprehend material which they read. Criteria for the articles included good organization, suitable readability level, and interesting material. Twelve multiple-choice test items were constructed for each article to test understanding of main ideas, details and prediction, application, and generalization. In each grade one group used materials containing no organizational helps; another group read material preceded by a purpose statement; and a third group read articles with marginal notes. Testing time was 50 to 60 minutes, and students were assigned to each technique to provide an equal range of ability. Final scores were available for 81 subjects in each procedure in grade 4, 68 subjects in each procedure in grade 6, and 87 subjects in each procedure in grade 8. The statistical analysis revealed that there was no significant interaction between ability level and type of comprehension aid and there was no interaction between type of comprehension aid and grade level. The author concluded that the study did not confirm the widely held view that the use of organizational devices is of value in comprehending material read. However, no systematic instruction and practice prior to testing was given in using the organizational aids evaluated.

7367

Stanchfield, Jo M. "The Effect of High-Interest Materials on Reading Achievement in the First Grade," Junior College and Adult Reading Programs: Expanding Fields. National Reading Conference Yearbook, 16 (1967) 58-61.

Experimental beginning reading materials were used in the first grades of 10 Los Angeles City schools, and end-of-first-grade achievement was compared with that of control groups using the regular state texts. The new materials included a reading readiness teacher's manual, a series of textbooks containing original stories about Alaska and Hawaii, and a set of listening tapes to accompany the readers. The Harsch and Soberg Survey Test of Primary Reading Development was given in June to both experimental and control groups. Significant differences were shown for three main effects: (1) the girls read significantly better than the boys in the study; (2) the Mexican-American children read significantly worse than the Caucasian or Negro; and (3) the experimental groups read significantly better than the control groups. Tables are given.

7379

Tagatz, Glenn E. "Grouping by Sex at the First and Second Grade," The Journal of Educational Research, 59 (May-June 1966) 415-18.

Male and female students in equal numbers from first and second grade were selected randomly from experimental and control classes in two schools of the Neenah (Wisconsin) Public School System. The experimental classes consisted of instructional groups arranged homogeneously by sex. The duration of the study was 1 year. Reading vocabulary and comprehension were examined by analysis of covariance, with IQ as the covariate. Personal, social, and total adjustment scores were examined in a 2x2x2 factorial, repeated measures design using analysis of variance procedures. Auditory discrimination scores also were examined using the analysis of variance. Teacher reports were made in an unstructured manner. General lack of significant differences and generally unfavorable reactions of teachers to homogeneous grouping by sex lead to the conclusion that boys and girls can profitably remain together for instruction in the first and second grade. Tables and references are included.

7018

Teigland, Anna Elizabeth. A Comparison of the Effectiveness of Two Approaches to Teaching Reading--The Individualized and the Basal Reader. 149 p. (Ed.D., The University of Florida, 1966) Dissertation Abstracts, 27, No. 9, 2754-A. Order No. 67-3521, microfilm \$3.00, xerography \$7.00 from University Microfilms.

The results of a 2-year study designed to compare the results obtained through testing vocabulary and comprehension skills and attitude development after instruction in beginning reading, using two different approaches, are presented. The influences of socioeconomic level of the family, education of the mother, position in the family, sex, and intelligence were analyzed. Subjects were 134 children randomly selected from kindergartens of three suburban schools and placed in one of six first grades. One basal and one individualized classroom were organized in each school. According to the analysis of variance, the difference between means by method was not significant at the .05 level on any variable tested. Intelligence and sex were highly significant on vocabulary and comprehension under both methods, and the F ratio for sex was highly significant on attitude. Comparable results were obtained each year of the study. The individualized group read significantly more books of greater difficulty and variety. The correlation between socioeconomic level and reading success was significant on each variable for the basal method only. Correlation between mother's education and reading success was not significant. Test results did not reflect the more extensive reading of the individualized group. Girls of comparable ability achieved higher scores than boys and developed a positive attitude to a higher degree, regardless of intelligence.

6520

Trione, Verdun and Larson, James. "A School Explores ITA," Journal of Educational Research, 28 (March 1967) 96-101.

A pilot study was conducted with three first-grade groups to investigate the feasibility of adopting i/t/a in a school district. The experimental group A using i/t/a materials consisted of 30 subjects whose parents volunteered to participate. Control group B, including 25 subjects, was in the experimental school but used the Scott, Foresman Reading program. Control group C in a nearby school used a modified Scott, Foresman Reading program. At the completion of the first grade, the California Achievement Test (lower primary) and the California Test of Mental Maturity (SF-0) were administered. The t test indicated no significant differences in IQ. For both mean reading vocabulary and comprehension, group A excelled over groups B and C. Control group B scored higher than group C. The probability of the Hawthorne effect was considered. The effect of differences in teacher training and experience was impossible to determine. As a result of this pilot study, the use of i/t/a materials was expanded within the district. It was recommended that an inservice program for teachers should precede participation in the i/t/a program. The careful planning and teamwork by principal, teachers and parents helped make the study beneficial. Suggestions for the administrative planning of similar studies are given.

7387

Vilscek, Elaine C.; Cleland, Donald L.; and Bilka, Loisanne. "Coordinating and Integrating Language Arts Instruction," The Reading Teacher, 21 (October 1967) 3-10.

The longitudinal effects and outcomes of the Co-ordinated Basal Language Arts Approach and the Integrated Experience Approach to Communication on pupils' language development in an urban setting were the major research objectives of this study. Main effects hypotheses included tests between methods, between socioeconomic levels, between mental age levels, between sexes, and between the various combinations of effect interactions. Nine criterion variables were examined in this review of the Pittsburgh Project: word meaning, paragraph meaning, science and social studies concepts, spelling, word study skills, language skills, arithmetic computation, and arithmetic concepts as measured with the Stanford Achievement Test, Primary Battery II; and reading attitude as measured with the San Diego Pupils' Inventory of Reading Attitudes. The evaluation was made at the end of the second grade for 172 pupils using the Integrated Approach and for 252 pupils using the Co-ordinated Approach. Differences are noted at various levels of significance. Pupils taught through an Integrated Experience Approach in second grade demonstrated superiority in comprehending concepts and reading in science, social studies, and arithmetic. References are included.

6537

Weintraub, Samuel. "What Research Says to the Reading Teacher: Illustrations for Beginning Reading," The Reading Teacher, 20 (October 1966) 61-67.

Some research concerning the effects of illustrations on three aspects of reading achievement is reviewed. The three studies reported which deal with the effect of illustrations on comprehension are inconclusive--one was favorable, one found no difference, and one was unfavorable to the inclusion of illustrations. One study is reported which supports the view that pictures are an aid in teaching sight words. Ten studies are reported which examine effects of illustrations on children's interest. Fourteen references are included.

6160

Whipple, Gertrude. "Implementing the Changing Concepts of Reading Instruction in the Primary Grades," Changing Concepts of Reading Instruction. International Reading Association Conference Proceedings, 6, Part 2 (1961) 29-32.

It is posited that the responsibility for reading growth must be carried on in all subjects at all levels. To implement this point of view, five concepts: building background, flexible grouping, specialized vocabulary, reading material, and child development are discussed with the following conclusions. (1) It cannot be assumed that the child brings with him to his reading the background of concept building necessary for him to succeed. Essential experimental background must be structured into the learning situation. (2) Flexible grouping is suggested as a means of using the advantages of whole-class, individualized, and group instruction. (3) The specialized vocabularies required for reading in the content areas must be taught. (4) Reading materials are to be used as an integral part of content subject lessons. (5) Reading instruction contributes to what the child will become; therefore, children's literature used in conjunction with the content areas can implement the concept of child development.

5711

Williams, David Lee. The Effect of Rewritten Science Textbook Materials on the Reading Ability of Sixth-Grade Pupils. 203 p. (Ed.D., University of Illinois, 1964) Dissertation Abstracts, 25, No. 11, 6442. Order No. 65-3695, microfilm \$2.75, xerography \$9.25 from University Microfilms.

The effect of rewritten science materials on sixth-grade pupils' reading comprehension and reading rate was investigated. The sample population consisted of 417 pupils who were randomly assigned to form control or experimental groups. In addition, three achievement levels

were used. The analysis of variance was the statistical technique used. From an analysis of the findings, the author concluded that rewriting sixth-grade science textbook selections through simplification of style and vocabulary helped sixth-grade pupils to significantly increase their reading rate and reading comprehension.

7416

Williams, David L. "Rewritten Science Materials and Reading Comprehension," The Journal of Educational Research, 5 (January 1968) 204-06.

As a test of measurable effects on students' reading abilities of materials rewritten at a lower readability level, one chapter of a sixth-grade science textbook was rewritten at the third-grade level. Five research hypotheses concerning the increase of reading comprehension and reading speed by students using the rewritten chapter were tested. Four hundred sixth-grade pupils were randomly assigned to the control and experimental groups. The control group read the regular text, while the experimental group read the rewritten text. A comprehension test was given to all subjects after the reading assignment. Analysis of variance showed the mean comprehension scores and reading rates of the experimental group to be significantly higher than those of the control group. On the basis of these findings, four recommendations were made concerning teachers rewriting reading materials or authors writing them at lower readability levels. References are included.

Wilson, H. A. and Atkinson, R. C. Computer-Based Instruction in Initial Reading--A Progress Report on the Stanford Project. 110 p. (OEC-4-6-061493-2089, Stanford University, California, 1967) ED 015 847, microfiche \$0.50, hard copy \$5.60 from EDRS.

The Stanford Reading Project is discussed in terms of its operation, its function in the elementary school setting, the rationale and major components of the curriculum, and computer-assisted instruction (CAI). The progress of the Stanford CAI Reading Program is reported with particular reference to the school year 1966-67 when the initial classes of first-grade students received a major portion of their daily reading instruction on a CAI tutorial system. Laboratory organization, operation, and classroom cooperation are described. The curriculum is divided into four major areas: decoding skills, comprehension, games and other motivational devices, and review. A report on student progress at a fairly gross level is generated each week. Revisions for the coming year involve modifying the branching structure, display formats, and the audio search procedures. References and figures are included.

Youtz, Adella C. and Putnam, Lillian R. Multi-Variable Comparison of Structural Reading Program and an Enriched Basal Reading Program with Disadvantaged Urban Children. Final Report. 82 p. (OEG-1-7-078079-3085, Newark State College, Union, 1968) ED 024 542, microfiche \$0.50, hard copy \$4.20 from EDRS.

This exploratory multivariable comparison of an augmented structural (Stern and Gould) and an enriched basal (Winston) program was conducted with two matched classes of low to average ability disadvantaged children in grades 1 and 2. At the end of grade 1 the basal class rated significantly superior on the Gates-MacGinitie Comprehension Test and the California Test of Mental Maturity. The structural class rated significantly superior on the Structural Reading Achievement Test and in the number of words written on the writing sample. At the end of grade 2 significant differences favored the structural class in spelling ability and in the desire to write words and stories instead of to color pictures. Analysis of covariance, with mental ability controlled, showed the structural class to be equal or superior on most measures of the study. Consistent findings favoring the structural class in reading and writing samples were confirmed by a study of the progress of the lowest five readers in each class. The researchers inferred that the growth of the structural class in language components and their favorable academic work habits suggested that the structural method provided a stronger foundation in language skills for these disadvantaged children. References and appendixes are included.

**Part I -- Research on Comprehension,
1950-1969, Abstracted**

Section 3: Language

6171

Allen, Robert L. "An Approach to Better Reading Through the Recognition of Grammatical Relationships," Improvement of Reading Through Classroom Practice. International Reading Association Conference Proceedings, 9 (1964) 224-25.

The ability to read complex sentences intelligently is seen to require the recognition of the structure of each sentence and the position that the different words occupy. The need for a type of English grammar which can be easily taught in the lower grades is noted--a grammar emphasizing sentence units and not words. A unique approach to English grammar, sector analysis, which emphasizes unit positions is briefly discussed. Sector analysis is seen as a useful way of teaching students to recognize the most important units in a sentence.

7058

Anderson, J. A Scale to Measure the Reading Difficulty of Children's Books. University of Queensland Papers, 1, No. 6. (St. Lucia: University of Queensland Press, 1967) 21 p.

The reading difficulty of 10 books was calibrated using cloze tests with a sample of 2,022 subjects in classes at each grade level from 2 through 7 in nine Brisbane, Australia, state primary schools. The reading difficulty estimates formed the basis of a readability reference scale to be used with other children's books. The McLeod's Gap Reading Comprehension Test which expresses each child's cloze score as a reading age was administered first and was followed by the Silent Reading Puzzles Test which is designed for measuring by cloze procedure the readability of the 10 books selected. Readability age levels were calculated for each book by finding the reading age at which children in the sample scored 21.25 percent on the corresponding Silent Reading Puzzles Test. The rank order correlation of the 10 books in terms of reading difficulty, using these two measures, was significant well beyond the .001 level of confidence. To illustrate the use of this scale by the classroom teacher, the readability reference scale was applied to find the reading difficulty of four children's books. One advantage of using this scale is that a number of books may be calibrated at one time, while the teacher obtains a measure of the reading age of all pupils. References, tables, and a copy of the Silent Reading Puzzles Test are included.

4357

Arnsdorf, Val E. "The Influence of Indefinite Terms of Time and Space on Comprehension of Social Studies Materials," Challenge and Experiment in Reading. International Reading Association Conference Proceedings, 7 (1962) 159-61.

This investigation concerns itself with the effect of indefinite time and space terms upon children's understanding of social studies materials. Two sets of materials were chosen for the study: one consisted of two selections from basal textbooks, and the other set consisted of an adjusted or rewritten form with indefinite expressions replaced with a more specific vocabulary. Open-end questions were used to check comprehension and were presented to 310 pupils in 12 classrooms in the intermediate grades. Responses to the same questions were taped for the remaining 92 pupils. A total of 412 pupils from 15 classrooms in the intermediate grades were tested. Reading levels were derived from the Gates Reading Survey. Data analysis included tests of mean differences between form, sex, and grade with reading comprehension and vocabulary scores controlled. It was concluded that reduction or elimination of indefinite time and space terms alone did not increase children's understanding of social studies concepts.

6266

Bakker, Dirk J. "Temporal Order, Meaningfulness, and Reading Ability," Perceptual and Motor Skills, 24 (June 1967) 1027-30.

The retention of temporal sequences by two reading groups was studied. The kind of material was varied by including meaningful-verbal, meaningful-nonverbal, and meaningless-nonverbal items. Subjects were 54 boys, ranging in age from 9-5 to 15-2, who were divided into two groups according to reading ability. All had learning and behavior disorders. Results indicated that, although dissimilar for different sorts of materials, the retention of temporal patterns was more difficult for the poor than for the better readers. No significant differences were evident between groups in relation to the temporal sequence of digits. Results differed, however, with respect to the nature of the material in the sequences. Further research is suggested.

7070

Bashaw, W. L. and Anderson, Harry E., Jr. "Developmental Study of the Meaning of Adverbial Modifiers," Journal of Educational Psychology, 59 (April 1968) 111-18.

The development of the meaning of adverbial modifiers was studied by pair-comparison and ranking methods. The adverbs studied were slightly, somewhat, rather, pretty, unmodified form, quite, decidedly, unusually, very, and extremely. The scaling tasks were administered to subjects in grades 1, 2, 3, 4, 5, 6, 8, 10, 12, and college. Obtained scale values were highly reliable. The degree to which the adverbs were scaled by each group related positively to age-grade classification. Primary-grade subjects identified at least three adverb groups, while adults identified about six groups. Correlation of scale values of primary-grade subjects with college subjects ranged from .74 to .94.

All other groups yielded correlations with college data above .90. Some words were seen to shift in meaning as a function of age-grade group. Results were interpreted in terms of applications to general scaling methodology, measurement methodology with young children, and language development research. Tables and references are included.

4821

Bormuth, John R. "Mean Word Depth as a Predictor of Comprehension Difficulty," California Journal of Educational Research, 15 (November 1964) 226-31.

The purpose of this study was to test a new method of measuring the grammatical complexity of sentences to see if it could be used to predict the difficulty children have in comprehending written verbal materials. Word depth analysis was developed by Yngve for use in programming computers to translate language. Three hypotheses were tested: (1) over the set of passages as a whole there is a correlation between mean word depth and comprehension difficulty; (2) there is a correlation between comprehension difficulty and mean word depth when the subject matters of the passages are held constant and their Dale-Chall readabilities are systematically varied; (3) there is a correlation between mean word depth and comprehension difficulty when the Dale-Chall predicted difficulties of the passages are held constant and the subject matters of the passages are varied. Nine passages divided equally among literature, science, and social studies were used. A 50-item cloze comprehension test was constructed for each passage. These were administered without time limits to 150 children enrolled in grades 4, 5, and 6 in a single school. The apparent ability of mean word depth to predict differences in comprehension difficulty among passages that also differed in subject matter content is a finding in this study. References are given.

6593

Bormuth, John R. Relationships Between Selected Language Variables and Comprehension Ability and Difficulty. 144 p. (CRP-2082, California University, Los Angeles, 1964) ED 003 325, microfiche \$0.75, hard copy \$7.20 from EDRS.

A study which dealt with one aspect of the question of why one language is easy to comprehend while another is not was reported. Specifically, it studied the problem of increasing the precision of readability prediction. The objectives were (1) to determine the forms and strengths of the relationships between comprehension difficulty of language and measurable dimensions (linguistic variables) of that language, (2) to try out new linguistic variables as useful predictors of comprehension difficulty, and (3) to find out if useful predictions can be made of the readabilities of smaller language units. Cloze tests and a standardized test of reading achievement were applied to approximately

900 public school students in grades 4 through 8. Testing produced comparable difficulty values for each word in 20 passages. A correlation analysis of over 30 combinations of linguistic variables for each 300-word passage revealed the comparative validity of various readability prediction methods.

6175

Deighton, Lee C. "The Flow of Thought Through an English Sentence," Vistas in Reading. International Reading Association Conference Proceedings, 11, Part 1 (1966) 322-26.

A linguistic approach to how English sentences deliver meaning is presented. Problems created for the reader by English sentence structures are discussed. Semantic and structural factors are seen to cause the reader to hold meaning in abeyance until the end of the sentence. Attention is given to the general principle that meaning accumulates in a straight left-to-right direction only in action sentences and that meaning is delivered in a circular manner in nonaction sentences. The strategies of a mature reader as he deals with sentence patterns and structures are listed.

6785

Early, Joseph Franklin. A Study of Children's Performance on Verbally Stated Arithmetic Problems With and Without Word Clues. 241 p. (Ed.D., University of Alabama, 1967) Dissertation Abstracts, 28, No. 8, 2889-A. Order No. 68-1037, microfilm \$3.15, xerography \$11.05 from University Microfilms.

The performance variance of 296 sixth-grade pupils in solving verbal arithmetic problems with the presence or absence of word clues was examined. The selection of correct processes as well as correct answers was considered in the study. A list of 31 word clues and a test using 13 sets of companion problems were used. A mean difference technique for correlated data was applied to test scores. Findings indicated that, as a whole, the children performed better in selecting correct processes and correct answers for problems with word clues than for those without word clues. Lower student performance on a standardized test was correlated with lower performance on problems without word clues. Suggestions are made for eliminating word clues which allow students to secure the correct answer without really understanding the problem situation.

6333

Emans, Robert and Fisher, Gladys Mary. "Teaching the Use of Context Clues," Elementary English, 44 (March 1967) 243-46.

The use of context clues as a device for word recognition was studied. Six exercises, using revisions of the Gates Reading Survey Test, were developed for use with 781 pupils in grades 3 to 10. The relative difficulty of six different clues--multichoice of omitted words, initial and final letter, the beginning letter, omitted vowels, omitted complete words, and no clue--was determined and related to the subjects' sex, IQ, and achievement. Findings were significant for all six forms. Evidently, the more clues a reader has, the easier the unlocking of unfamiliar words. Context clues plus other word attack techniques appeared necessary for appropriate response. Data showed that readers used similar clues in unlocking words regardless of sex, intelligence, comprehension, vocabulary, or grade level. It was concluded that easy to difficult exercises were practical for teaching context clues in the classroom. References are given.

6794

Fairchild, Frances Elizabeth. A Study of the Extent to Which Selected Clues Serve as Aids to the Identification of Unknown Words. 146 p. (Ed.D., University of Missouri, Columbia, 1967) Dissertation Abstracts, 28, No. 9, 3361-A. Order No. 68-3603, microfilm \$3.00, xerography \$7.00 from University Microfilms.

The purpose of the study was to investigate the extent to which the following clues aid the identification of unknown words when presented cumulatively in the order listed: context, initial elements added, final elements added, and remaining vowels added. Fifty fifth-grade children, average or above in general reading achievement and word analysis skills, were subjects. Thirty words familiar in sound and meaning but unfamiliar in printed form to at least 70 percent of the subjects were response words. Subjects read specially written narrative passages to identify response words placed by blank spaces. For a word not identified from its contextual setting, additional word element clues were provided. Conclusions included (1) Generally words unfamiliar to the reader in printed form could be identified with context and total word element clues. (2) High performers in identification of words with context clues and word element clues were superior to low performers in extent of sight word vocabulary, listening-meaning vocabulary, reading achievement, and ability to identify words without maximal clues. (3) Words most frequently identifiable with context and word element clues required fewer maximal clues for identification than did words less frequently identifiable. (4) Context clues without additional word elements produced meaningful responses more frequently than they produced exact word identification.

6806

Freeman, Helen Viola. A Study of Ambiguity in the Language in Certain Textbooks for Grades Four, Five, and Six. 70 p. (Ed.D., University of

Arkansas, 1967) Dissertation Abstracts, 28, No. 4, 1339-A. Order No. 67-12,866, microfilm \$3.00, xerography \$3.80 from University Microfilms.

Seven hundred and thirty-six students in the fourth, fifth, and sixth grades were studied to determine the relationship between the understanding of multiple-meaning words and phrases and the students' sex, age, mental maturity, father's vocation and education, mother's education, year in school, number of siblings, and instruction. The data were secured from the students' accumulative school records and the results of two tests--one given in the fall consisting of words and phrases used out of context and one given in the spring consisting of words and phrases used in context. The findings revealed that the children understood ambiguous words and statements better when used in context. There was a relationship between mental age and understanding ambiguousness. Grade in school had a relationship to understanding ambiguities when used out of context but not when used in context. Parents' educational and vocational backgrounds had a significant relationship to childrens' understanding ambiguous words and phrases out of context but not when used in context. There was no significant difference between boys and girls in understanding ambiguities.

5460

Gallant, Ruth Margaret Frances. An Investigation of the Use of Cloze Tests as a Measure of Readability of Materials for the Primary Grades. 152 p. (Ed.D., Indiana University, 1964) Dissertation Abstracts, 25, No. 11, 6431-32. Order No. 65-2370, microfilm \$2.75, xerography \$7.20 from University Microfilms.

The use of the cloze test as a measure of readability of materials for primary grade pupils and the effect of increased sentence length on the readability of materials for use with primary grade pupils were investigated. The cloze tests and a comparable form of the Metropolitan Test were administered to 273 pupils. Pearson product-moment correlation was used to determine whether the rankings of pupils on the cloze test corresponded with the rankings on the standardized achievement test. For the second problem, two sets of passages were written, each consisting of five levels of reading difficulty as measured by the Spache Readability Formula. A set of revised passages, with increased sentence length, were administered to the 273 pupils. The set of revised passages increased the Spache readability level so that the level ranged from 3 months to 1 year higher than that of the basal passages. From an analysis of the results, the author concluded that cloze tests were valid and reliable measures of readability for the primary grades. Increase in sentence length appeared to increase the difficulty level of materials for first- and second-grade pupils, but this increase did not hold true for all subgroups of grade 3.

5124

Gallant, Ruth. "Use of Cloze Tests as a Measure of Readability in the Primary Grades," Reading and Inquiry. International Reading Association Conference Proceedings, 10 (1965) 286-87.

The validity and reliability of cloze tests as a measure of reading comprehension for pupils in the first three grades and the effect of increased sentence length on the reading difficulty of passages designed for use with beginning readers were investigated. To test the validity of cloze tests, a comparison was made between the ranking of pupils within each grade on the paragraph reading section of a standardized reading achievement test and the ranking of these pupils on the same section of a comparable form, rewritten as a cloze test. The tests were given to 273 pupils in two schools in Bedford, Indiana. The cloze tests were found to be valid and reliable measures of reading comprehension. It was suggested by the experiment with sentence length, that cloze tests offer a means of isolating variables which affect readability.

3200

Gammon, Agnes L. "Comprehension of Words with Multiple Meanings," California Journal of Educational Research, 3 (November 1952) 228-32.

The purposes of the investigation were (1) to identify words with multiple meanings found in reading textbooks at the first-, second-, and third-grade levels; (2) to determine some of the problems children have in reading and understanding these words; and (3) to suggest techniques to aid in teaching words with multiple meanings. Three series of textbooks were selected on the basis of vocabulary range, popularity, frequency of use, author's qualifications as an educator, and the degree of ease with which the books could be read. The books were checked for words with multiple meanings. Tests were constructed which required students to check pictures with different marks to indicate meaning. The test for grade 1 contained 24 words with 66 meanings; the grade-2 test contained 36 words with 100 meanings; the grade-3 test included 48 words with 132 meanings. No slow learning pupils were tested. Subjects were 40 first graders, 55 second graders, and 80 third graders. The range of number correct for grade 1 was 24 to 58; for grade 2, 43 to 96; and for grade 3, 51 to 112. References are included.

6168

Goodman, Kenneth S. "Dialect Barriers to a Reading Comprehension," Reading and Inquiry. International Reading Association Conference Proceedings, 10 (1965) 240-42.

Specific areas of language divergence which cause difficulties in learning to read are presented. A phonics program not consistent with the dialect of the learner is seen to confuse more than help. Dissimilar

inflectional changes, patterns and rules of language sequences, patterns of stress and pitch and pause, and vocabulary diversity are seen as potential barriers to comprehension. Suggestions for teaching the divergent speaker are included.

Goodman, Kenneth S. and Burke, Carolyn L. Study of Children's Behavior While Reading Orally. Final Report. 139 p. (PROJ-S425, BR-5-8424, OEC-6-10-136, Wayne State University, Detroit, 1968) ED 021 698, microfiche \$0.75, hard copy \$7.05 from EDRS.

Psycholinguistic knowledge and techniques can be used as the basis for reading process research with a view to the development of a reading theory. The initial phase of such a study is reported, and reading behavior on a comprehensive basis is examined. The assumption upon which the research is based is that reading miscues are generated by the same process that generates expected responses. The oral reading behavior of 12 children reading a story selected from a basal reader was examined. These subjects were fourth and fifth graders who were determined by informal test and teacher evaluation to be proficient readers. Initial analysis of miscues led to the formulation of a taxonomy of reading miscues. Questions concerning each miscue were asked. Change and acceptability were examined semantically and syntactically at the phonemic, morphemic, and syntactic levels. Miscues were examined, compared, and contrasted in terms of their component parts, relative value, and levels of involvement. References are listed. Appendixes include material on computer coding which uses the taxonomy of cues and miscues, a comprehension rating sheet, and a reading research data sheet.

6071

Jenkinson, Marion D. "Reading--Developing the Mind," Changing Concepts of Reading Instruction. International Reading Association Conference Proceedings, 6 (1961) 170-73.

The nature of thinking aroused by reading is discussed. The importance of teaching children to recognize and appreciate the structure of what they read is noted. Strategies in language functioning are discussed. Teaching critical awareness of word meanings and demonstrating analysis and assessment of the many factors affecting meaning are suggested. Types of errors that occur in the interpretation of word, phrase, and sentence are presented. The importance of seeing the relationships between ideas is emphasized. The prominent errors which occur in reading interpretation through faulty logic are listed along with rhetorical devices that confuse thought.

3873

McCracken, Robert A. "An Experiment with Contrived Readability in Fifth and Sixth Grades," Journal of Educational Research, 52 (March 1959) 277-78.

The effect made upon reading comprehension scores by changing the vocabulary difficulty of selections read was investigated. Two fifth- and four sixth-grade classes, with 124 children, served as subjects. Two selections were written. A fairy tale, originally written at third- or fourth-grade difficulty level, was purposely made more difficult; a difficult science selection was made easier. The Dale-Chall readability formula was used to assess the final difficulty level. The test was administered by the regular classroom teachers. No time limit was imposed. Both selections were followed by 10 multiple-choice questions which were designed to test the factual content and were written in simple style and language. Means were used to analyze the data. Eighty-four students scored better on the fairy tale, which had a readability grade level of seventh-eighth; 27 scored better on the scientific selection, with a fourth-fifth readability level. The mean number of questions correctly answered was higher for the fairy tale selection than for the scientific selection. Conclusions offered deal with the use of readability formulas to evaluate the difficulty of selections. It was noted that pupils may tend to judge a selection hard or easy by the number of difficult words they encounter rather than by how well they comprehend it.

6942

Nurss, Joanne Ruth. Children's Reading: Syntactic Structure and Comprehension Difficulty. 129 p. (Ph.D., Columbia University, 1966) Dissertation Abstracts, 28, No. 2, 503-A. Order No. 67-9361, microfilm \$3.00, xerography \$6.20 from University Microfilms.

An analysis was made of the hypotheses that sentences of greater syntactic complexity would be more difficult reading for primary grade children than would sentences of less complex structure when structural complexity was assessed (1) by structural depth, using Yngve's depth hypothesis and Allen's sector analysis and (2) by structural organization, as defined in traditional grammar. Thirty-six one-sentence stories representing varying structural depths and organizations were read by or to 144 second-grade subjects who had been selected through use or nonuse of a test on vocabulary used in the compositions. Comprehension was tested by a picture comprehension test and an analysis of oral reading errors. Picture comprehension scores showed no significant differences due to structural complexity for students with or without the vocabulary screening test. Listening comprehension was easier than reading comprehension for children not screened on vocabulary. Oral reading and listening comprehension were easier than silent reading comprehension for students who had been screened on vocabulary. It was concluded that at the beginning reading level, vocabulary contributed most to variability in reading difficulty. Syntactic structure affected reading difficulty when measured by oral reading errors but not when measured by the picture comprehension test.

6706

Nurss, Joanne R. Children's Reading--Syntactic Structure and Comprehension Difficulty. Final Report. 20 p. (OEG-1-6-068331-1643, Columbia University, New York, Teachers College, 1966) ED 011 975, microfiche \$0.25, hard copy \$1.00 from EDRS.

The concern of this study was the effect of sentences of varying structural complexity on primary grade children's oral reading, silent reading, and listening comprehension. The author prepared 36 one-sentence "stories" which varied in structural complexity as assessed by the depth hypothesis of structural depth (Yngve, 1960), sector analysis of structural depth (Allen, 1964), and traditional structural organization. One-half of the sentences represented different degrees of structural depth, and the other half, different types of structural organization. The structural organization sentences were ranked as complex, compound, and simple as defined by traditional grammar. All sentences were designed with the same interest and difficulty level and were approximately the same length. The subjects were 144 second-grade children, either screened by a vocabulary test or selected without the test. The sentence "stories" were experimentally rotated over the three tasks of oral reading, silent reading, and listening comprehension. Comprehension of each sentence was measured by a picture-comprehension test and an evaluation of oral-reading scores. The hypothesis that sentences of greater structural depth would be more difficult for children to read was partially supported by the oral-reading error data, but not by the picture-comprehension data. The hypothesis that sentences of more complex structural organization would be more difficult to read was not supported by either measure.

Potter, Thomas C. A Taxonomy of Cloze Research, Part I: Readability and Reading Comprehension. 52 p. (OEC-4-7-062865-3073, Southwest Regional Educational Laboratory, Inglewood, California, 1968) ED 022 644, document not available from EDRS.

General information about the cloze technique and summaries of experiments with adults and children in which it was used are presented. Results indicated that the most valid and reliable cloze test for measuring passage difficulty is one in which (1) an every nth mechanical mutilation system is used, (2) not more than 20 words in every 100 are deleted, (3) passage length is at least 250 words, (4) at least 50 words are deleted in order to insure adequate sampling of passages, and (5) the exact word deleted is indicated as the most useful and efficient scoring criteria. It was also indicated (1) that deletion ratios of 1.10 and 1.12 in longer passages may be valid for certain purposes, (2) that scoring systems other than the exact word (synonym, form class) provide less interscorer reliability and require more time, and (3) that the separate scoring of form classes or content and function words may provide specific information for specialized purposes. Further research is recommended. A bibliography is included.

7320

Robertson, Jean E. "Pupil Understanding of Connectives in Reading," Reading Research Quarterly, 3 (Spring 1968) 387-416.

Fourth, fifth, and sixth graders' reading comprehension of connectives, the linguistic forms that connect a clause to another clause or to some word in the other clause, was investigated in this three-part study. The first part dealt with the identification of connective types and the sentence structures in which they appear; the second, with the construction of a Connectives Reading Test; and the third, with the analysis of results of the test. The five null hypotheses tested dealt with statistical control of the variables: sex, mental age, chronological age, socioeconomic status, listening ability, reading ability, and written language ability. It was hypothesized that there were no significant relationships between the understanding a child has of connectives and any of the variables. Results showed a significant relationship between the understanding a child has of connectives and his sex, mental age, residence, grade level, and abilities in listening, reading, and written language.

4980

Ruddell, Robert B. "The Effect of Oral and Written Patterns of Language Structure on Reading Comprehension," The Reading Teacher, 18 (January 1965) 270-75.

The purpose of this study was (1) to investigate the metrical characteristics, specifically the reliability and validity, of the cloze comprehension test in relation to an exact deletion method and a synonym count method of scoring cloze responses and (2) to study the discrimination power of the two scoring methods of the cloze comprehension test on reading materials written with high and low frequency patterns of language structure. A series of six reading passages, written to utilize patterns of language structure which were found to represent a wide range of frequency in the oral language of fourth-grade children, was administered to 131 fourth-grade pupils who were selected randomly from the total fourth-grade population of a metropolitan school district chosen because it encompassed the identical schools from which the original fourth-grade oral language recordings were obtained for the analysis of patterns of language structure in the study by Strickland. Details of procedure, testing and scoring, and results are provided. Conclusions reached within the limitations of this study are given and discussed. Tables and references are included.

6179

Ruddell, Robert B. "Reading Comprehension and Structural Redundancy in Written Material," Reading and Inquiry. International Reading Association Conference Proceedings, 10 (1965) 308-11.

The relationship between the redundancy of syntactical elements of language structure in written materials and reading comprehension was explored. Two reading passages were designed to present fourth-grade readers with two levels of structural redundancy. Vocabulary, sentence length, and subject matter content of the reading material were carefully controlled. Each reading passage was made into a cloze comprehension test and administered to 131 randomly selected fourth-grade students. Analysis of variance was used to test the mean comprehension scores for significant differences. The passage having greater structural redundancy was more easily comprehended than the passage having less redundancy. The study concluded that reading comprehension is a function of the redundancy of syntactical elements.

4981

Ruddell, Robert B. "A Study of the Cloze Comprehension Technique in Relation to Structurally Controlled Reading Material," Improvement of Reading Through Classroom Practice. International Reading Association Conference Proceedings, 9 (1964) 298-303.

An investigation of the effect of the similarity of oral and written patterns of language structure on reading comprehension of fourth graders is reported. The effect of six subject background variables--educational status of the parents, occupational status of the father, intelligence, mental age, chronological age, and sex--is included. Six passages, three representing high frequency and three low frequency patterns of oral language of fourth graders, were written. Difficulty and content of the passages were controlled, and cloze comprehension tests were constructed for each. Scores were obtained on 131 fourth-grade subjects of the cloze test, the Otis Quick Scoring Mental Ability Test, and the Paragraph Meaning of the Stanford Achievement Test, Intermediate Form. Reliability and validity coefficients were obtained. One-way and two-way analysis of variance were used to analyze the data. Reading comprehension scores on materials that utilized high frequency patterns of oral language structure were significantly greater than reading comprehension scores on materials that utilized low frequency patterns. On the other six variables, all but one were significantly related to reading comprehension on materials that utilized high and low frequency patterns. Recommendations and references are included.

7337

Samuels, S. Jay. "Effect of Word Association on Reading Speed, Recall, and Guessing Behavior on Tests," Journal of Educational Psychology, 59 (n.m. 1968) 12-15.

A study was conducted to check the prediction that a paragraph containing words with high-associative (HA) relationships should be read faster and with better recall than a similar paragraph containing words

with low-associative (LA) relationships. Mean reading time for elementary school subjects in the HA condition was 43.82 seconds and in the LA condition 58.81 seconds ($p < .05$). The mean number of questions answered correctly was 9.50 for HA and 5.04 for LA ($p < .001$). When college subjects read the same paragraphs, the mean time was 35.26 seconds for HA and 38.26 for LA ($p < .01$). The mean number of questions answered correctly was 9.69 for HA and 6.87 for LA ($p < .001$). When required to guess the correct answer, control subjects chose significantly more HA relationships with words in the stem of the question. Results on reading speed are discussed in terms of the effect of word associations on perceptual factors in word recognition. References are included.

Tatham, Susan M. Using Multiple Choice Questions to Measure the Effect on Comprehension of Material Written with Select Oral Language Patterns. 15 p. (OEC-5-10-154, Wisconsin University, Madison, 1968) ED 018 355, microfiche \$0.25, hard copy \$0.85 from EDRS.

The effect of frequently used oral language patterns in written material on the reading comprehension of fourth graders was examined. Ruddell's frequency patterns were used. Two passages were constructed--the first with four high frequency patterns (Passage A) and the second with four low frequency patterns (Passage B). Factors controlled within the passages were length, readability, content, and style. Two taxonomies were used to guide the writing of comprehension questions. The 14 questions tested literal comprehension, inferential comprehension, evaluation, and appreciation. Fifty-three fourth graders at two intelligence levels were grouped by sex and randomly assigned a passage. Analysis of variance was used to analyze the data. Passage A was comprehended better than Passage B. The difference in comprehension scores between the intelligence levels was significant at the .05 level. There was no sex difference in comprehension scores. Conclusions, references, and three appendixes are included.

3361

Taylor, Wilson L. "'Cloze Procedure': A New Tool for Measuring Readability," Journalism Quarterly, 30 (Fall 1953) 415-33.

The results of using the cloze procedure for measuring the effectiveness of communication were shown repeatedly to conform with the results of using the Flesch and Dale-Chall devices for estimating readability. The main contributions of the cloze procedure came from the concepts of total language context, dispositional mechanisms, and random deletion. The first experiment sought to decide whether cloze scores would rank passages the same as the other devices did. The ranks were maintained, and differences were tested for statistical significance. The second experiment included materials which indicated that a cloze procedure could handle passages which neither of the standard formulas

could. Evaluation showed that the cloze procedure worked, was simple to use, and produced valid results. Tables are included. The need for more research to validate cloze procedures is stressed.

7403

Weintraub, Samuel. "Research," The Reading Teacher, 21 (March 1968) 567-71, 607.

The cloze procedure, a technique where words are deleted from a passage on some specified criterion and replacements are scored on the basis of being the exact word or a synonym, has been investigated as a measure of readability and of comprehension. Researchers have found that cloze scores are valid and reliable predictors of readability and that these scores correlate positively with scores on reading comprehension tests. Cloze appears to be a promising answer to the need for a valid, reliable, and simple measure to help teachers predict the usefulness of a given piece of material with a particular group of pupils. References are included.

3375

Werner, Heinz. "Change of Meanings. A Study of Semantic Processes Through the Experimental Method," Journal of General Psychology, 50 (April 1954) 181-208.

A study of general semantic processes underlying change of word meanings is described. The genetic-experimental method of analysis was used. Experimental findings concerning semantic activity of children and linguistically naive, low-educated adults were compared with historic changes of word meaning. This comparison is preceded by a brief discussion of certain general theoretical aspects of semantic change from the point of view of psycholinguistics. The experimental results presented have bearing on the problem of semantic change in two respects: they contribute empirically toward a contextual theory of semantic change, and the relationships between meanings involved in change are ordinarily interpreted by linguistics in terms more or less borrowed from logic. References are given.

7051

Zemen, Samuel Steve. The Relationship Between the Measured Reading Comprehension and the Basic Sentence Types and Sentence Structural Patterns in Composition Written by Second- and Third-Grade Children. 108 p. (Ed.D., Lehigh University, 1966) Dissertation Abstracts, 27, No. 10, 3243-A. Order No. 67-4882, microfilm \$3.00, xerography \$5.40 from University Microfilms.

The study investigated the relationship between aspects of reading comprehension and the basic sentence types and sentence structures used in compositions of second- and third-grade students. Subjects were given the comprehension section of the Science Research Associates Achievement Series, Reading 2-4 and wrote an ending to an unfinished story. Children were grouped by ability and sex. Each composition was analyzed in terms of sentence structural patterns and basic sentence types. Conclusions of the study were (1) All sentence types were used by the children in their compositions. (2) The frequency with which the sentence types were employed did not differ between boys and girls. (3) The simple sentence was most used. (4) As grade level increased, the proportion of simple sentences decreased, and the proportion of complex sentences increased. (5) Below-average readers used simple sentences more frequently than above-average readers, and above-average readers used compound sentences more frequently than average and below-average readers. (6) The use of sentence type was not independent of sex and level of reading comprehension. (7) Two sentence structure patterns (noun-verb-noun and noun-verb) made up 87 percent of the sentences. (8) An analysis of written compositions according to the 10 basic structural patterns could not differentiate among children at this level in terms of sex, grade, or level of reading comprehension.

Part I -- Research on Comprehension,
1950-1969, Abstracted

Section 4: Measurement

7074

Benz, Donald A. and Rosemier, Robert A. "Concurrent Validity of the Gates Level of Comprehension Test and the Bond, Clymer, Hoyt Reading Diagnostic Tests," Educational and Psychological Measurement, 26 (n.m. 1966) 1057-62.

This concurrent validity study investigated the relationship of word-analysis proficiency to reading comprehension performance among fourth graders. Variables were syllabication, location of root words, words in context, word elements, beginning sounds, and rhyming sounds as defined by the Bond, Clymer, Hoyt (1955) Silent Reading Diagnostic Tests, Form D-A. Reading comprehension, serving as the criterion variable, was assessed by the Gates (1958) Level of Comprehension Test, Type LC, Form 3. Subjects were 1,402 fourth graders from 55 classrooms representing varied school environments. Scores on the Gates test defined high (6.0-9.2), middle (4.6-5.9), and low (2.0-4.5) readers. An analysis of variance and subsequent Scheffé tests indicated significant differences (.01) between levels. Proficiency on word-analysis skills was significantly related to reading comprehension, accounting for 54 percent of the variance as shown by a step-wise multiple regression. Partial correlation coefficients indicated a high degree of correlation with comprehension for five of the six skills studied. Tables and references are included.

4565

Bormuth, John. "Cloze as a Measure of Readability," Reading as an Intellectual Activity. International Reading Association Conference Proceedings, 8 (1963) 131-34.

The purpose of the study was to determine whether cloze tests can be used as measures of the comprehension difficulties of the passages from which they are made. A summary of related research is included. A set of nine passages were written so that there were three in each of the subject matter categories of literature, social studies, and science. The passages were written at the 4.5, 5.5, and 6.5 readability levels. Specifications for readability levels were computed using the Dale-Chall formula. A 31-item multiple-choice comprehension test was written over each passage. A second test using the cloze technique was made by deleting every fifth word until 50 items had been obtained. The tests were administered to three groups of 50 children each. One group came from each of grades 4, 5, and 6. Reliabilities and correlations were computed between the total scores on the multiple-choice and the cloze test. The results indicated the cloze tests used in this study were (1) valid and uniform measures of reading comprehension, (2) valid and highly reliable predictors of the comprehension difficulties of the passages, and (3) appropriate for individuals and groups which varied widely in comprehension abilities. References and tables are included.

6283

Bormuth, John R. "Comparable Cloze and Multiple-Choice Comprehension Test Scores," Journal of Reading, 10 (February 1967) 291-99.

A frame of reference for interpreting scores on cloze tests used for measuring an acceptable level of comprehension was determined. Cloze tests and multiple-choice tests were developed for nine passages and given to 100 fourth graders. A cloze score of 50 percent was comparable to a multiple-choice raw score of 90 percent and a corrected score of 87 percent. The standard error of this regression on the multiple-choice scores was 6 percentage points. The comparable scores should apply only when dependent scores are based upon tests and test instructions similar to those used in this study, and item difficulties vary from one test to another. Also, the selection of the cloze test length should involve both the reliabilities of individual test scores and the reliability of test difficulty. References are listed.

4820

Bormuth, John R. "Experimental Applications of Cloze Tests," Improvement of Reading Through Classroom Practice. International Reading Association Conference Proceedings, 9 (1964) 303-06.

A study to determine the reliability of cloze tests when used to measure the comprehension difficulties of passages is described. A general discussion of the construction of cloze tests is followed by an analysis of the test and of the procedures used in this study. Findings of the study are examined; it is concluded that reliability increases with the number of test items. Suggestions are given for use of the cloze test in research.

7135

Department of Education and Science (British Government). Progress in Reading 1948-1964. Education Pamphlet No. 50. (London: Her Majesty's Stationery Office, 1966) 18 p.

Results of reading comprehension tests given in 1948, 1952, 1961, and 1964 to English 11- and 15-year-olds were compared. All surveys used the Watts-Vernon Comprehension Test. The unpublished test consists of 35 progressively more difficult multiple-choice questions and has a 10-minute time limit. The test proved to be slightly biased, but consistently so in favor of boys. Data from the various types of schools surveyed are compared in tabular and graphic forms. Comparisons between secondary modern schools, schools in social-problem areas, and schools in the slums are made. The validity of the comprehension test is discussed, and sampling techniques used in the surveys are detailed. It is concluded that steady progress has been made in improvement of British reading standards from 1948 to 1964.

6331

Eller, William and Attea, Mary. "Three Diagnostic Reading Tests: Some Comparisons," Vistas in Reading. International Reading Association Conference Proceedings, 11 (1966) 562-66.

A comparative exploration of the Durrell, Gates-McKillop, and Spache diagnostic reading tests is reported. Between-test and within-test discrepancies were checked, using scores from a random sample of 101 third-grade pupils. Statistical analyses for the subtests for oral reading and word analysis showed high correlation for function and skill. The t-test for equivalency of scores showed consistently higher grade level values on the Spache test. Unequal item difficulties were noted for listening comprehension and silent reading on the Durrell and Spache subtests. Since the tests are designed for observing faulty habits and weaknesses, the sophisticated diagnostician must evaluate pupils' reading abilities as they succeed or fail on the various test obstacles. References are listed.

5551

Lidberg, Richard George. Reading Comprehension Difficulties in Fourth, Fifth, and Sixth Grade Social Studies Textbooks. 1126 p. (Ph.D., The University of Iowa, 1965) Dissertation Abstracts, 26, No. 10, 5893. Order No. 66-3456, microfilm \$14.30, xerography \$50.85 from University Microfilms.

Responses to reading selections from three commonly used social studies textbooks, at fourth-, fifth-, and sixth-grade levels were collected and analyzed. Eighteen reading selections were randomly chosen from nine textbooks on three grade levels, and the reading difficulties were evaluated through use of the Dale-Chall Formula. Three forms of multiple-choice comprehension tests and cloze test were devised for the material. The comprehension test scores of 317 children were correlated with the grade equivalent scores of the reading, work-study skills, and composite results of the Iowa Tests of Basic Skills (ITBS). Pupils were tested using a cloze test, and additional students were interviewed about the reading material to determine concepts and word understandings. Intercorrelations of the comprehension and cloze tests indicated that some of the same skills were measured at the fourth-grade level, fewer at the fifth-grade level, and skills of a different nature at the sixth-grade level. There was also an indication that the Dale-Chall Formula predictions and the cloze tests had a relationship more in common at the sixth-grade level than at the fourth-grade level, but a higher correlation between cloze results and grade equivalent scores on the ITBS existed at the fourth-grade level. The lowest correlation between cloze results and ITBS grade equivalent scores was found at the sixth-grade level. Additional findings and conclusions are included.

3875

Maney, Ethel S. "Literal and Critical Reading in Science," Journal of Experimental Education, 27 (September 1958) 57-64.

The relationships between general reading comprehension, scientific reading comprehension, and verbal intelligence, as revealed by fifth-grade children, were investigated. Subjects were 513 fifth graders in the last month of school from 18 classes, 9 urban and 9 suburban, in the Philadelphia area. A special test to assess scientific reading comprehension, the Intermediate Reading Test: Science, was constructed. Reliability of the test was determined. In addition, the Gates Reading Survey, Level of Comprehension, and the Pintner General Ability Test, Verbal Series, were administered. Terminology is defined and procedures listed. Intercorrelations, chi-square, point bi-serial correlations, and several measures of item analysis were used to analyze the data. There was a substantial correlation between literal and critical reading comprehension in science. There was a very high relationship between verbal intelligence and general reading ability. There was a high relationship between verbal intelligence and literal science reading and between general reading comprehension and literal science comprehension. Conclusions, implications, and a bibliography are included.

4932

McCracken, Robert A. "The Development and Validation of the Standard Reading Inventory for the Individual Appraisal of Reading Performance in Grades One Through Six," Improvement of Reading Through Classroom Practice. International Reading Association Conference Proceedings, 9 (1964) 310-13.

A study of the validity and reliability of an individual reading test for measuring the reading achievement of elementary school children is described. Independent reading level, instructional reading level(s), and frustration reading level were measured by the Standard Reading Inventory (SRI). Content validity was found by testing 664 children in grades 1 through 6 using word lists from SRI and securing rating of content difficulty from 25 experts in the area of reading. Reliability was determined by selecting at random 10 subjects from each grade level who were divided into two groups of 30 subjects and were given the two forms of the test. Significant findings are noted for both the reliability and validity of the test.

3754

McCullough, Constance M. "Responses of Elementary School Children to Common Types of Reading Comprehension Questions," Journal of Educational Research, 51 (September 1957) 65-70.

An investigation was made to see whether essentially different things are being tested when young children are tested for different

types of comprehension. Previous research indicated that the comprehension skills so tested with fairly mature people were highly correlated, and it was suggested that a common factor was involved. Two hundred and fifty-eight children in the first, second, and fourth grades were given, respectively, the Pre-reading Tests, the Second Grade Readiness Tests, and the Fourth Grade Readiness Tests of the Ginn Basic Reading Tests. It was found that children at all the levels examined were able to think about story material in the four ways tested--(1) main idea, (2) details, (3) sequence, and (4) creative reading. A positive relationship among the comprehension types suggesting the possibility of a common factor in all was found, but the finding did not justify the idea of testing children by one type in order to discover their abilities in all types of comprehension. Tables are included.

Otto, Wayne and Barrett, Thomas C. Two Studies of Children's Ability to Formulate and State a Literal Main Idea in Reading. Report from the Reading Project. 32 p. (OEC-5-10-154, Wisconsin University, Madison, Research and Development Center for Cognitive Learning, 1968) ED 024 543, microfiche \$0.25, hard copy \$1.70 from EDRS.

The two reported studies examined children's approaches to and success in conceptualizing a literal main idea in reading. The first study examined elementary pupils' ability to formulate a main idea for brief, carefully controlled paragraphs written with one specific but unstated main idea. The study revealed that although subjects' grade placement and paragraph readability were critical factors in determining response quality, the children's main idea responses were generally of low quality. In the second study second- and fifth-grade students were asked to formulate hypotheses about the main idea after each successive sentence of a paragraph was presented. This study revealed that relatively few subjects were successful in formulating a high level main idea statement and that children may have no clear conception of what a main idea ought to be. It was suggested that systematic teaching designed to channel pupils' energies in formulating main idea statements would yield worthwhile results. Background information, methodology employed, and paragraphs used in the study are included.

4470

Preston, Ralph C. "Reading Achievement of German and American Children," School and Society, 90 (October 20, 1962) 350-54.

In response to claims that reading is taught more effectively in Europe than in the United States, an investigation comparing American test data with data from one school system in Wiesbaden, Germany, was conducted. Subjects were fourth- and sixth-grade pupils, 1,053 tested in Wiesbaden and 1,338 tested in public schools in Philadelphia and vicinity. Mental ages for the pupils of the two samples were approximately

equal. Two reading comprehension tests were administered to all subjects: the Frankfurter Test and the comprehension subtest of the Gates Reading Survey. Each test was translated, with each pupil taking two tests, one native and one foreign, in his own language. Correlations between the comprehension scores for groups, sexes, and retarded readers revealed information contradictory to common claims made by various American publicists. Some analysis of possible reasons for contradictory findings is noted along with statements of need for extended assembly of similar data. Results are expressed in tabular form; references are included.

3552

Research and Guidance Branch, Department of Public Instruction, Queensland. Research Findings in Reading. Bulletin No. 10. (Brisbane, Australia: Department of Public Instruction, Technical College Building, February, 1956) 13 p.

A comparison of present and past reading standards in grade 5 was made in Australian schools. Ten tests of silent reading ability were given to 33,000 children in 1933. In 1946, a new series of tests was applied to a similar sample. The tests utilized in 1955 were drawn from both earlier surveys: the A.C.E.R. Speed of Reading Test (Form 2B), A.C.E.R. Reading for Meaning (Form 3C), and A.C.E.R. Reading to Note Details (Form 4A). The mean scores were calculated and compared for grade 5 pupils in 1933, 1946, and 1955. The reapplication of tests of reading comprehension and speed of reading indicated that there had been no change in standards of any consequence in the past 20 years. Suggestions for improving silent reading in grades 4 through 6 are given. A table is included.

3264

Shores, J. Harlan and Saupe, J. L. "Reading for Problem-Solving in Science," Journal of Educational Psychology, 44 (March 1953) 149-58.

The relationship between the Test of Reading for Problem-Solving in Science and other measures was studied. The Test of Reading for Problem-Solving in Science for grades 4, 5, and 6 consists of two passages of approximately 800 words each. Following each passage are 24 multiple-choice items. Reliability of the test was assessed by the Kuder-Richardson formula. Correlations were made between the Science Test, New California Short-Form Test of Mental Maturity, Progressive Achievement Tests, and sociometric measures. Correlations between the Science Test and the sociometric measures were so low that they were not reported. Eight hundred middle-class students from central Illinois served as subjects. Intercorrelations among the Science Test, mental age, reading age, and arithmetic age were significantly positive. The highest correlation was between science reading and reading age. The lowest correlation was between science reading and chronological age. Reading in grades 4, 5,

and 6 to solve problems in science has a common factor with measured mental ability and general achievement. References are included.

Wolf, Richard M. Forecasting Academic Status. 16 p. (OEC-4-7-062865-3073, Southwest Regional Educational Laboratory, Inglewood, California, 1968) ED 021 702, document not available from EDRS.

A manual for forecasting the level of achievement students are likely to attain unless special help is provided was developed for third-grade teachers as a result of a study which showed a sufficiently high relationship between achievement at the beginning of third grade and at the beginning of sixth grade. In this study, the achievement scores in reading vocabulary, reading comprehension, arithmetic fundamentals, and arithmetic reasoning for about 700 students in beginning third grade and beginning sixth grade in two California school districts were collected. Electronic computers and stepwise multiple regression procedures were used to analyze the data for each student. The sixth-grade performance in one of the four areas was used as the criterion variable, and the third-grade variables were used as the predictors. Results prescribe using the data in beginning third grade for predicting academic status in sixth grade. The manual developed illustrates how this is done. Sample forms for forecasting achievement in each of the four areas are included. The manual is being used in the participating elementary schools; plans for followup studies have been made.

**Part I -- Research on Comprehension,
1950-1969, Abstracted**

Section 5: Research Summaries

94/95

4053

Clymer, Theodore and Robinson, Helen M. "Reading," Language Arts and Fine Arts, Review of Educational Research, 31 (April 1961), 130-44.

An analysis of reading research published from 1957 through 1960 is presented. Document analyses of representative studies are arranged under the following topics: general bibliographies and reviews, grouping practices, methods, materials, comprehension, factors related to reading, visual problems and reading, and remedial reading. Areas of future research are suggested. A 65-item bibliography and 52 additional references are appended. A starring system is used in the bibliography to indicate good bibliographic sources.

4610

Durrell, Donald D. and Murphy, Helen A. "Boston University Research in Elementary School Readings. 1933-1963," Journal of Education, 146 (December 1963) 3-53.

The research conducted in elementary school reading at Boston University from 1933 to 1963 is reported. The topics dealt with in 4 chapters are reading readiness, reading in grade 1, reading in grades 2 and 3, and reading in the intermediate grades. Approximately 500 references are cited.

3845

Gray, William S. "New Approaches to the Study of Interpretation in Reading," Journal of Educational Research, 52 (October 1958) 65-67.

The contributions of 11 reading research studies, published from 1912 to 1957, to the improvement of techniques for the study of interpretation in reading are examined. Thorndike's 1917 study, an attempt to identify objectively the processes involved in understanding what is read, and Judd and Buswell's study of different types of silent reading are discussed as milestones in the development of techniques of studying reading interpretation. Also included in the discussion are studies attempting to identify through the use of various correlation techniques the factors which exert most influence on comprehension. Several studies based on retrospective and introspective techniques, used quite frequently by more modern investigators, are described. In such studies, individual interviews and analysis of oral responses which are usually taped are used. References are included.

3622

Gray, William S. "Summary of Reading Investigations: July 1, 1955 to June 30, 1956," Journal of Educational Research, 50 (February 1957) 401-41.

A summary of reading investigations from July 1, 1955, to June 30, 1956, is given. The research is discussed under three headings: (1) the sociology of reading, (2) the psychology and physiology of reading, and (3) the pedagogy of reading. An annotated, alphabetical bibliography of the investigations is included.

3730

Gray, William S. "Summary of Reading Investigations: July 1, 1956 to June 30, 1957," Journal of Educational Research, 51 (February 1958) 401-35.

Ninety-six reading research articles published from July 1, 1956, to June 30, 1957, are summarized under the following headings: (1) the social role and implications of reading--extent of newspaper and magazine reading, content of newspapers, and effect or value of reading; (2) the physiology and psychology of reading--significant interrelationship of factors, perception and vision, reversals, relationship between perceptual and intellectual processes, intellectual or cognitive processes, interests, factors associated with slow learners, personality and emotional factors among nonachievers, interrelationships of aspects of reading among disabled readers, reduction of stuttering in oral reading, and hygiene of reading; (3) the teaching of reading--pupil achievement, reading readiness and factors influencing early progress in reading, phonics and word discrimination, vocabulary studies, evaluation of materials, methods, teacher behavior in promoting learning, content fields, mass media, remedial problems at particular grade levels, interests, reading improvement in high school and college, improvement programs for industry and government agencies, readability, and reading tests. An annotated bibliography is included.

3846

Gray, William S. "Summary of Reading Investigations: July 1, 1957 to June 30, 1958," Journal of Educational Research, 52 (February 1959) 203-21.

A summary and annotated bibliography of 118 reading investigations published from July 1, 1957, to June 30, 1958, is given. Sixteen summaries of research in specific areas of reading are listed, and four books are discussed. Significant research findings are reported briefly under the headings (1) the sociology of reading, (2) the physiology and psychology of reading, and (3) the teaching of reading.

3950

Gray, William S. "Summary of Investigations Relating to Reading: July 1, 1958 to June 30, 1959," Journal of Educational Research, 53 (February 1960) 203-22.

The investigations in this summary are arranged and reviewed according to the following broad subject areas: (1) specific aspects of reading, such as listening, visual problems, and reading retardation; (2) the sociology of reading or the use of different mass media, effect of various forms of presenting news and of bias in interpretation, and trends in newspaper circulation; (3) the physiology and psychology of reading, including relationships between reading and intelligence, correlations among reading, spelling, and arithmetic, reading and listening, eye-movement studies, factors influencing memory of words and paragraph meanings, speed and comprehension studies, speed of oral and silent reading, reading interests, readability studies, and factors associated with reading deficiency; and (4) the teaching of reading, including studies of achievement and progress in reading, phonics, vocabulary, grouping for instruction, developmental reading at the college level, remedial reading, and testing. All investigations are listed alphabetically by author, and a bibliography is given.

7187

Harris, Larry A. International Reading Association Conference Proceedings Reports on Elementary Reading. (Bloomington, Indiana: ERIC Clearinghouse on Reading, 1967) 1,135 p. ED 013 197, microfiche \$4.25, hard copy \$56.85 from EDRS.

The important papers published in the yearly conference proceedings of the International Reading Association in elementary reading since 1960 are listed with annotations, and the complete text of each paper is provided. The 345 papers are presented within the following categories: (1) the objectives and goals in reading, (2) reading programs, (3) teacher education, (4) reading materials, (5) methods and grouping, (6) reading skills, (7) early reading instruction, (8) preschool reading, (9) reading readiness, (10) reading in the content areas, (11) reading and the bilingual child, (12) first-grade reading, (13) linguistics and reading instruction, (14) reading and the disadvantaged, (15) reading in other countries, and (16) the diagnosis and treatment of reading difficulty. This bibliography should be useful to practitioners and researchers interested in elementary reading. An author index is included.

7188

Harris, Theodore L.; Otto, Wayne; and Barrett, Thomas C. "Summary and Review of Investigations Relating to Reading July 1, 1966 to June 30, 1967," The Journal of Educational Research, 61 (February 1968) 243-64.

Summaries and reviews of 165 empirical research studies (July 1, 1966, to June 30, 1967) in the sociology, psychology, physiology, and teaching of reading are presented. Separate bibliographies follow each section. Sociology of reading subheadings include (1) environmental influences, (2) characteristics of reading materials, (3) reading habits

and preferences, and (4) psychosocial effects of reading. The psychology of reading is subdivided into (1) psychological correlates of reading achievement, (2) aspects of the learning process, and (3) components of the reading task. Subtopics under the physiology of reading include (1) neurological aspects of reading, (2) sensory integration and reading, and (3) vision and reading. Studies in the teaching of reading include (1) federally supported studies of reading in grades 1 and 2, (2) the teacher and reading instruction, (3) analysis of reading materials, (4) the utility of phonic generalizations, (5) developmental aspects of reading instruction, (6) assessment and prediction of reading achievement, and (7) reading improvement.

4082

Henry, Nelson B., Ed. Development In and Through Reading. The Yearbook of the National Society for the Study of Education, 16, Part 1 (1961) 406 p.

Reading programs for elementary and secondary school pupils, extension of reading instruction in colleges and in organized programs of adult education, and reading to promote personal and social growth are discussed. Criticisms of reading programs and trends from 1950 to 1960 are presented. Articles written by leaders in the reading field are organized in these categories--the nature of reading development, factors and conditions influencing reading development and personal growth, materials of instruction for reading development and personal growth, sequential development in reading, and remedial procedures and evaluation. References and tables are included.

3740

Hunnicut, C. W. and Iverson, William J. Research in the Three R's. (New York: Harper and Brothers, 1958) 446 p.

Pertinent research in reading, writing, and arithmetic is reported, evaluated, and summarized. In addition, the methods of study employed, the bias of the study, and suggestions for possible classroom application are included. Part 1 deals with such aspects of reading as the relationship of reading and eye movements, reading and intelligence, the various methods of reading instruction (the usefulness of phonics, workbooks, vocabulary control), reading and comprehension, the development and improvement of reading tastes and interests, reading and other subjects, reading readiness, reading formulas, and remedial reading. Part 2 includes handwriting, spelling, and aspects of grammar and composition. Aspects of these areas discussed are manuscript versus cursive writing, selection and grade placement of words, misinformation and misunderstandings in grammar and composition, efficient methods of teaching handwriting and spelling, and successful methods for improving student usage. Part 3 presents research in arithmetic in an attempt to

examine certain pertinent issues such as the function of drill (insight versus connectionism), the problem of readiness, and grade placement. Methodology in teaching arithmetic, including the question of the necessity for any organized program, is discussed. Areas of needed research are suggested. Tables and charts are included.

6385

Kerfoot, James F. "Reading in the Elementary School," Review of Educational Research, 37 (April 1967) 120-33.

Significant research on reading in the elementary school which appeared in the literature from July 1963 to June 1966 is reviewed under the headings bibliographies and reviews, methods, U.S. Office of Education first grade studies, early reading and readiness, factors in success and failure, inservice programs and evaluation, and interests and tastes. A bibliography is included.

3755

McCullough, Constance M. "What Does Research Reveal about Practices in Teaching Reading?" English Journal, 46 (November 1957) 475-90.

Certain practices in teaching reading supported by research are summarized. The following areas of reading instruction are covered in the research articles reviewed: developing vocabulary, developing comprehension, developing speed of reading, developing tastes and appreciation, grouping for instruction, and evaluating growth in reading skills. A 119-item bibliography is included.

6475

Robinson, Helen M.; Weintraub, Samuel; and Smith, Helen K. "Summary of Investigations Relating to Reading: July 1, 1965 to June 30, 1966," Reading Research Quarterly, 2 (Winter 1966-1967) 51-52.

The findings of 306 reading studies reported from July 1, 1965, to June 30, 1966, are discussed. These studies are divided into six major categories: summaries of specific topics, teacher preparation, the sociology of reading, the psychology of reading, the teaching of reading, and reading of atypical learners. Studies cited within the psychology of reading category show an increased interest in intellectual abilities and creativity, personality and reading, and readability with emphasis on the cloze procedure. Those cited within the teaching of reading category show expanding research at the primary level. The need for additional research in the field of reading sociology is evident. Entries include journal articles, books, and conference proceedings. An annotated bibliography of the 306 titles is included.

7322

Robinson, Helen M.; Weintraub, Samuel; and Smith, Helen K. "Summary of Investigations Relating to Reading: July 1, 1966 to June 30, 1967," Reading Research Quarterly, 3 (Winter 1968) 151-301.

Three hundred and ten reports of research dealing with reading which were published from July 1, 1966, to June 30, 1967, are summarized. The studies are grouped into six major categories: (1) specific topics, such as beginning reading, grouping, and reading disability; (2) practices and preparation of teachers; (3) the sociology of reading, including such topics as investigations of mass media, readership, and the effect of reading; (4) the physiology and psychology of reading, including studies in such areas as perception, language, and factors related to reading disability as well as a new area of investigations concerned with home and family relationships; (5) the teaching of reading; and (6) the reading of atypical learners. Studies of instructional techniques and materials have been greatly expanded by the U.S. Office of Education First-Grade Reading Studies and the second-grade extension of some of them. An annotated bibliography of 310 titles is included.

3560

Shane, Harold G. "The First R," Research Helps in Teaching the Language Arts, Chapter 2, 4-33. (Washington, D.C.: Association for Supervision and Curriculum Development, National Education Association, 1955.)

Reading research dealing with those areas most frequently of concern to teachers is surveyed. A discussion and a summary for each of the following topics are included: (1) reading readiness, (2) the sequence of reading experiences, (3) word attack skills, speed, and comprehension, (4) the reading program and individual differences, (5) reading and children's interests, (6) the effectiveness of commercial materials, (7) causes of reading disability, (8) evaluating pupils' progress in reading, and (9) the role of oral reading. A 191-item bibliography is provided.

4017

Traxler, Arthur E. and Jungeblut, Ann, with the Assistance of the Educational Records Bureau Staff. Research in Reading During Another Four Years: Summary and Bibliography. Educational Records Bulletin, No. 75. (New York: Educational Records Bureau, May 1960) 226 p.

Summaries of reading research issued by the Educational Records Bureau during the period from approximately July 1, 1953, through December 31, 1957, are presented. A general summary of the research is given for the following areas--reading readiness, interests, reading in connection with other subjects, vocabulary and vocabulary building,

phonics, reading tests, testing procedures, speed, eye movements, physiological defects as related to reading, dominance and reversals, personality qualities, factors relating to reading achievement, diagnosis, remedial and corrective work, the developmental program, adult reading, and readability formulas. The time period covered was too short to indicate trends. A 438-item annotated bibliography is included; entries are coded for appropriate grade level. An alphabetical index of authors and a subject index are provided.

5036

Williams, Joanna P. "Reading Research and Instruction," Review of Educational Research, 35 (April 1965) 147-53.

A review of research in reading conducted since 1957 is presented. Studies on the nature of the reading process are described, including the areas of perceptual learning, decoding (relationships between orthography and speech), the critical unit of beginning reading training (letter clusters), and comprehension. Experiments with programmed teaching systems are reviewed. A 34-item bibliography is included.

Part II -- Research on Comprehension,
1900-1949, Annotated

104/105

4

Abell, Adelaide M. "Rapid Reading: Advantage and Methods," Education-
al Review, 8 (October 1894) 283-86.

Discusses differences in accomplishment of good and poor readers and the relation between speed and comprehension.

1842

Agnew, Donald C. The Effect of Varied Amounts of Phonetic Training on Primary Reading. Duke University Research Studies in Education, No. 5. (Durham, North Carolina: Duke University Press, 1939) 50 p.

Summarizes results of studies in third-grade classes to determine effects of phonetic and nonphonetic reading instruction on speed and comprehension in silent reading, on speed and accuracy in oral reading, on eye-voice span, and on reading vocabulary.

1843

Alderman, Everett. "The Effect of Size of Type on Speed of Reading and the Determination of Various Factors That May Influence the Results," Pittsburgh Schools, 13 (November-December, 1938) 33-63.

Summarizes findings of a study in the first six grades to determine the effect on speed of reading of 8-, 10-, 12-, and 14-point types. Considers also the influence of intelligence, mental age, comprehension level, and various characteristics of vision.

5

Alderman, Grover H. The Effect of Certain Kinds of Drill Exercises on Comprehension. Bulletin of the Extension Division, 8, No. 11, 12-25. (Bloomington, Indiana: Extension Division, Indiana University, 1923.)

Describes an experiment carried on in grades 4 to 8 for 6 weeks to determine the effect of three types of drill work on comprehension.

439

Alderman, Grover H. Improving Comprehension Ability in Silent Reading. Bulletin of the Extension Division, 11, No. 3, 28-37. (Bloomington, Indiana: Extension Division, University of Indiana, 1925.)

Describes the effect of daily training in comprehension given to 1,933 pupils in grades 4 to 8, inclusive.

513

Alderman, Grover H. "Improving Comprehension Ability in Silent Reading," Journal of Educational Research, 13 (January 1926) 11-21.

Reports the results of two sets of experiments in grades 4 through 8 to determine the value of specific training in vocabulary, organization, and retention when given separately and together.

6

Anderson, C. J. and Merton, Eida. "Remedial Work in Reading," Elementary School Journal, 20 (May and June 1920) 685-701, 772-91.

Outlines types of errors in oral and silent reading. Describes six poor readers, the remedial instruction used in each case, and the results.

7

Anderson, C. J. and Merton, Eida. "Remedial Work in Silent Reading," Elementary School Journal, 21 (January 1921) 336-48.

Outlines types of remedial instruction for increasing rate of reading and comprehension.

1743

Anderson, Irving H. "An Evaluation of Some Recent Research in the Psychology of Reading," Harvard Educational Review, 7 (May 1937) 330-39.

Summarizes evidence to show that differences between good and poor readers are central rather than peripheral, that in remedial reading emphasis is needed on comprehension rather than on mechanics.

2313

Artley, A. S. "The Appraisal of Reading Comprehension," Journal of Educational Psychology, 34 (January 1943) 55-60.

Reviews the findings of several investigators supporting the assumption that a pupil who comprehends well in one area of instruction may not comprehend so well in other areas.

572

Ayer, Adelaide M. Some Difficulties in Elementary School History. Teachers College Contributions to Education, No. 212. (New York: Teachers College, Columbia University, 1926) 70 p.

Presents the results of studies in the fifth and seventh grades to determine the extent to which pupils comprehend what they read in history and the extent to which failure is due to difficult words, terms, and expressions.

15

Ballard, P. B. "Silent Reading," Journal of Experimental Pedagogy, 5 (March 1920) 174-78.

Describes a scale for measuring comprehension through the use of a completion test.

2206

Baranyai, Erzsebet I. "Relation of Comprehension to Technique in Reading," Journal of Genetic Psychology, 59 (September 1941) 3-26.

Presents data from 238 pupils pertaining to the relation between vision, recognition, and reproduction in the reading act and the extent to which comprehension influences technique in reading.

692

Bear, Mata Virginia. The Length of Word as an Index of Difficulty in Silent Reading. (Unpublished Master's Thesis, Department of Education, University of Chicago, 1927) 77 p.

Analyzes the results of specially planned tests given to 246 sixth-grade pupils to determine the effect of word length on comprehension.

906

Bedwell, Robert Lafayette. Improvement of Reading in the Public Schools. Contributions to Education Published under the Direction of George Peabody College for Teachers, No. 65. (Nashville, Tennessee: George Peabody College for Teachers, 1929) 106 p.

Describes the steps taken in a controlled experiment involving pupils in grades 1 through 12 to improve achievement in reading and presents an analysis of the results.

22

Bentley, Madison. "Leading and Legibility," Critical and Experimental Studies in Psychology from the University of Illinois. Psychological Review Monograph Supplements, Vol. 30, No. 3, 48-61. (Princeton, New Jersey: Psychological Review Co., 1921.)

Presents the results of a study to determine the effect of different leading on legibility.

1550

Betts, Emmett Albert. "Reading Disability Correlates," Education, 56 (September 1935) 18-24.

Presents a helpful outline of correlates of reading disability and points out that no one correlate can account for all types and degrees of difficulty and that no one remedial procedure can be used for all types of disability.

1975

Betts, Emmett A. "Reading Problems at the Intermediate-Grade Level," Elementary School Journal, 40 (June 1940) 737-46.

Presents conclusions based on test scores and other data collected from 78 fifth-grade pupils with the view to studying both clusters of difficulties and capacity for compensation.

1654

Betts, Emmett A. "Retardation in Reading," The Role of Research in Educational Progress. Official Report of the American Educational Research Association, 1937, 186-91. (Washington: American Educational Research Association of the National Education Association, 1937.)

Presents conclusions concerning reading deficiencies drawn from approximately 2,000 publications covering a number of areas related to reading problems.

31

Blanton, Smiley. "A Survey of Speech Defects," Journal of Educational Psychology, 7 (December 1916) 581-92.

Presents the results of a survey of speech defects among children in public and parochial schools in Madison, Wisconsin. Discusses the relation of speech defects to reading.

36

Boggs, Lucinda Pearl. "How Children Learn to Read: An Experimental Study," Pedagogical Seminary, 12 (December 1905) 496-502.

Summarizes the conclusions of studies concerning the effect of the form and content of printed material on recognition and presents the results of a new experiment.

39

Breed, Frederick S. "A Comparison of Two Methods of Measuring Comprehension in Reading," School and Society, 7 (March 2, 1918) 266-70.

Compares scores on the Starch and the Thorndike reading tests in order to determine the validity of the tests and the relation between the abilities tested.

2209

Broom, M. E. "Improvement of Reading Mechanics," Texas Outlook, 24 (May 1940) 29.

Reports the effects of the use of the metronoscope for 5 months on speed and comprehension and the eye-movement habits of 189 pupils in the fifth and sixth grades, including a few retarded readers in grades 3, 4, 7, and 8.

2106

Broom, M. E. "A Study of Race and Sex Differences in Reading Comprehension," Journal of Educational Research, 34 (April 1941) 587-93.

Analyzes and interprets reading test scores secured from 9,276 pupils in grades 5 to 8 to determine the need for different curricula and teaching methods to provide for race and sex differences in reading comprehension.

48

Burgess, May Ayres. "Controlling Factors in the Measurement of Silent Reading," Report of the Society's Committee on Silent Reading. Twentieth Yearbook of the National Society for the Study of Education, 20, Part 2, 25-38. (Bloomington, Illinois: Public School Publishing Co., 1921.)

Discusses the factors which should be considered in efforts to measure silent reading accomplishment.

1556

Burk, Cassie. "A Study of the Influence of Some Factors in Style on Interest, Comprehension, and Rate of Reading of Fourth-Grade Pupils," Journal of Experimental Education, 4 (June 1936) 303-52.

Reports the results of a study to determine if it makes any difference whether the selection is written in short simple sentences, in long complex and compound sentences, in a mixture of the foregoing, in the form of a play, in direct conversation, or in indirect conversation.

799

Burks, Jesse D. and Stone, Clarence R. "Relative Effectiveness of Two Different Plans of Training in Silent Reading," Elementary School Journal, 29 (February 1929) 431-36.

Reports the results of a study of 404 fourth- and fifth-grade pupils to determine the relative effect of standard test lessons in reading and learn-to-study readers in increasing silent reading achievement.

447

Burton, Cassie B. Things to Do in the Teaching of Reading. (Unpublished Master's Thesis, George Peabody College for Teachers, 1925.)

Presents the results of an effort to improve speed and comprehension in the case of elementary school pupils in Hamilton County, Tennessee.

55

Cabell, Elvira D. "An Experiment in Silent Reading," Chicago Schools Journal, 5 (June 1923) 393-99.

Describes the methods used in an effort to increase speed and comprehension in reading.

2804

Carlson, Thorsten R. "The Relationship Between Speed and Accuracy of Comprehension," Journal of Educational Research, 42 (March 1949) 500-12.

Presents results of a statistical analysis of the scores of 330 fifth-grade pupils on the Gates Silent Reading Tests and on specifically prepared tests to determine the relationship between speed and accuracy of comprehension as influenced by variations in intelligence, purposes for reading, difficulty of material read, continuity of context, etc.

585

Carroll, Robert P. An Experimental Study of Comprehension in Reading. Teachers College Contributions to Education, No. 245. (New York: Teachers College, Columbia University, 1926) 72 p.

Describes the methods used and analyzes the results obtained in efforts to improve ability in the reading of directions.

2714

Chall, Jeanne S. "The Influence of Previous Knowledge on Reading Ability," Educational Research Bulletin, 26 (December 10, 1947) 225-30, 246.

Presents evidence from sixth- and eighth-grade pupils showing that more knowledge of concepts in tuberculosis contributes to better reading of materials in tuberculosis.

2112

Coffing, Esther A. "The Relationship Between Silent Reading Ability and Arithmetical Ability," School Science and Mathematics, 41 (January 1941) 10-14.

Presents conclusions based on scores of 355 pupils in grades 4B to 8A on the Paragraph Meaning and Arithmetic Reasoning sections of the new Stanford Achievement Test.

1029

Coulter, Merle Aline. "Comprehension and Rough Repetitions," University of Pittsburgh School of Education Journal, 6 (December 1930) 63-70.

Presents the results of objective measurement to determine the effect of repeated reading of geographical materials by fourth-grade pupils.

2554

Courtney, Douglas; Bucknam, Margaret E.; and Durrell, Donald. "Multiple Choice Recall Versus Oral and Written Recall," Journal of Educational Research, 39 (February 1946) 458-61.

Compares the comparative ease of multiple-choice and unaided recall, either written or oral, of the content of short passages read silently, in the case of 72 ninth-grade pupils and 122 fifth-grade pupils.

810

Cutright, Prudence; Halvorson, George P. S.; and Brueckner, L. J. "A Study of One Factor in the Grade Placement of Reading Materials," Elementary School Journal, 29 (December 1928) 284-95.

Interprets the results of tests given to 230 pupils in grade 4 and to 52 pupils in grades 5 and 6 in order to determine the extent to which the materials read were properly graded with respect to difficulty of comprehension.

2487

Davis, Frederick B. "Fundamental Factors of Comprehension in Reading," Psychometrika, 9 (September 1944) 185-97.

Reports the basic skills involved in comprehension in reading, as revealed by an analysis of the literature of the field, and their relative importance, as revealed through the use of factorial analysis.

816

Dearborn, Frances R. "A Study of Erroneous Word Concepts in Reading," Elementary English Review, 6 (January 1929) 3-6, 23.

Presents the results of a preliminary study of the word difficulties encountered in reading by third- and fourth-grade pupils.

1452

Dewey, Joseph C. "The Acquisition of Facts as a Measure of Reading Comprehension," Elementary School Journal, 35 (January 1935) 346-48.

Summarizes the results of tests given to approximately 140 pupils to determine the relation between ability to secure facts and the ability to do inferential thinking regarding historical material read.

1363

Dewey, Joseph C. "A Technique for Investigating Reading Comprehension," School and Society, 39 (March 3, 1934) 276 p.

Points out weaknesses in previous methods of measuring comprehension and describes the individual oral interview method as a means of avoiding the difficulties considered.

455

Dransfield, J. Edgar, with an Introduction by William A. McCall. "A Technique for Teaching Silent Reading," Teachers College Record, 26 (May 1925) 740-52.

Reports the results of an investigation involving 10 experimental groups and 10 control groups to determine the effect of a technique of teaching through standard and informal testing on progress in comprehension.

1572

Durrell, D. D., et al. "Research Problems in Reading in the Elementary School," Elementary English Review, 13 (March, April, May 1936) 101-06, 111; 149-56; 184-93; and 14 (October 1936) 228-33. Also Published as Fourth Annual Research Bulletin of the National Conference on Research in Elementary School English.

Presents a summary of significant research in the field of elementary school reading, emphasizes directly or by implication various principles underlying instruction in reading, and identifies problems requiring further investigation.

2722

Eagle, Edwin. "The Relationship of Certain Reading Abilities to Success in Mathematics," The Mathematics Teacher, 41 (April 1948) 175-79.

Bases conclusions on correlations between a composite measure of success in mathematics and scores on tests of reading comprehension, reading speed, general vocabulary, mathematics vocabulary, and ability to interpret graphs and formulas.

819

Eckert, Mollie Horton. "The Importance of Context in Reading," University of Pittsburgh School of Education Journal, 4 (March-April 1929) 97-102.

Compares the scores on tests given to pupils in grade 4B to determine the effect of context on comprehension.

1040

Eurich, Alvin C. "The Relation of Speed of Reading to Comprehension," School and Society, 32 (September 20, 1930) 404-06.

Discusses related studies critically and presents the results of investigations showing that the correlation between speed and comprehension depends in part on the manner in which each is measured.

823

Fennell, Ethel L. "Recurring Words and Their Relation to Difficulties in Comprehension," Elementary School Journal, 29 (September 1928) 42-53.

Reports the results of an analysis of the primer, first reader, and second reader of five series of readers to determine the number of different meanings that attach to recurring words.

457

Fishback, Archer William. The Effect of Different Types of Discourse on Comprehension Ability in Silent Reading. (Unpublished Master's Thesis, School of Education, Indiana University, 1925.)

Reports the results of an experiment among more than 200 fourth- and fifth-grade pupils to determine the effect of well written and poorly written material on comprehension.

598

Foran, T. G. The Present Status of Silent Reading Tests, Part II: The Measurement of Comprehension. Catholic University of America Educational Research Bulletins, 2, No. 3. (Washington: Catholic Education Press, 1927) 52 p.

Describes various tests of comprehension and summarizes studies relating to their validity and reliability.

1998

Gans, Roma. A Study of Critical Reading Comprehension in the Intermediate Grades. Teacher College Contributions to Education, No. 811. (New York: Columbia University, 1940) 136 p.

Reports the findings and conclusions of a detailed study among 417 fourth-, fifth-, and sixth-grade pupils to determine the components of ability to engage effectively in reference reading from a variety of content.

826

Georges, J. S. "The Nature of Difficulties Encountered in Reading Mathematics," School Review, 37 (March 1929) 217-26.

Reports six types of difficulties encountered by pupils in studying mathematics and discusses their nature.

116

Germane, Charles E. and Germane, Edith Gayton. Silent Reading. (Chicago: Row, Peterson and Co., 1922) 384 p.

Summarizes experiments relating to silent reading and describes methods of teaching in different grades.

2130

Gibbons, Helen D. "Reading and Sentence Elements," Elementary English Review, 18 (February 1941) 42-46.

Summarizes findings of a study involving 25 third-grade children to determine correlation between ability to see relationships among parts of a sentence and ability to read as determined by a standardized reading test.

119

Gilliland, A. R. "The Effect of Rate of Silent Reading on Ability to Recall," Journal of Educational Psychology, 11 (November 1920) 474-79.

Reports the results of a study of the effect of rapid, normal, and slow reading on comprehension.

123

Gist, Arthur S. "Silent Reading," Elementary School Journal, 18 (September 1917) 52-55.

Reports the results of efforts to improve speed and comprehension in grades 5 to 8, inclusive.

1585

Goodykoontz, Bess. "The Relation of Pictures to Reading Comprehension," Elementary English Review, 13 (April 1936) 125-30.

Reports the results of an experiment in seven classes in grades 6B through 8A to determine the relation of pictures to reading comprehension.

830

Gray, C. T. "A Comparison of Two Types of Silent Reading as Used by Children in Different School Grades," Journal of Educational Psychology, 20 (March 1929) 169-76.

Compares the efficiency of two types of reading used by 491 children in grades 4, 5, and 6.

127

Gray, Clarence Truman. "The Anticipation of Meaning as a Factor in Reading Ability," Elementary School Journal, 23 (April 1923) 614-26.

Summarizes a series of experiments to show the place and function in reading of the anticipation of meaning.

1586

Gray, William S. "Selected References on Elementary School Instruction, Reading," Elementary School Journal, 36 (October 1935) 129-35.

Lists 45 annotated references published between July 1, 1934, and June 30, 1935.

2826

Gray, William S. "Summary of Reading Investigations: July 1, 1947 to June 30, 1948," Journal of Educational Research, 42 (February 1949) 401-37.

Summarizes findings and presents an annotated bibliography of 89 scientific articles related to reading.

2731

Gray, William S. "Summary of Reading Investigations: July 1, 1946 to June 30, 1947," Journal of Educational Research, 41 (February 1948) 401-35.

Presents a summary and annotated bibliography of 80 scientific studies related to reading.

2645

Gray, William S. "Summary of Reading Investigations: July 1, 1945 to June 30, 1946," Journal of Educational Research, 40 (February 1947) 401-35.

Presents an annotated bibliography of 72 scientific studies related to reading and summarizes the major conclusions reached.

2566

Gray, William S. "Summary of Reading Investigations: July 1, 1944 to June 30, 1945," Journal of Educational Research, 39 (February 1946) 401-33.

Includes an annotated bibliography of 70 references and a summary of the significant findings reported.

2434

Gray, William S. "Summary of Reading Investigations: July 1, 1942 to June 30, 1943," Journal of Educational Research, 37 (February 1944) 401-40.

Presents an annotated bibliography of 114 references and a summary of significant findings.

2344

Gray, William S. "Summary of Reading Investigations: July 1, 1941 to June 30, 1942," Journal of Educational Research, 36 (February 1943) 401-44.

Presents a summary and an annotated bibliography of 114 scientific studies related to reading.

2229

Gray, William S. "Summary of Reading Investigations: July 1, 1940 to June 30, 1941," Journal of Educational Research, 35 (February 1942) 401-42.

Presents a summary and an annotated bibliography of 114 scientific studies related to reading.

2135

Gray, William S. "Summary of Reading Investigations: June 30, 1939 to July 1, 1940," Journal of Educational Research, 34 (February 1941) 401-43.

Presents an annotated bibliography of 119 studies and summarizes the most significant findings.

2007

Gray, William S. "Summary of Reading Investigations: July 1, 1938 to June 30, 1939," Journal of Educational Research, 33 (March 1940) 481-523.

Presents an annotated bibliography of 126 references and summarizes the most significant results of the studies reported.

1888

Gray, William S. "Summary of Reading Investigations: July 1, 1937 to June 30, 1938," Journal of Educational Research, 32 (March 1939) 481-517.

Summarizes findings and conclusions of 98 published investigations and reports pertaining to reading.

1774

Gray, William S. "Summary of Reading Investigations: July 1, 1936 to June 30, 1937," Journal of Educational Research, 31 (February 1938) 401-34.

Summarizes significant findings and conclusions of 95 published investigations related to reading.

1684

Gray, William S. "Summary of Reading Investigations: July 1, 1935 to June 30, 1936," Journal of Educational Research, 30 (April 1937) 553-76.

Points out the major types of studies reported in 100 published investigations and summarizes the most important findings.

1587

Gray, William S. "Summary of Reading Investigations," Journal of Educational Research, 29 (February 1936) 407-32.

Presents a brief summary of investigations related to reading which were published between July 1, 1934, and June 30, 1935.

1473

Gray, William S. "Summary of Reading Investigations: July 1, 1933 to June 30, 1934," Journal of Educational Research, 28 (February 1935) 401-24.

Presents a brief summary of the results of investigations related to reading, followed by an annotated bibliography including 95 references.

1380

Gray, William S. "Summary of Reading Investigations: July 1, 1932 to June 30, 1933," Journal of Educational Research, 27 (April 1934) 564-91.

Summarizes the important results of 94 scientific studies related to reading and presents an annotated bibliography.

1280

Gray, William S. "Summary of Reading Investigations: July 1, 1931 to June 30, 1932," Journal of Educational Research, 26 (February 1933) 401-24.

Presents a bibliography of 118 investigations related to reading and a brief summary of significant findings and conclusions.

1167

Gray, William S. "Summary of Reading Investigations: July 1, 1930 to June 30, 1931," Elementary School Journal, 32 (February, March, and April 1932) 447-63; 510-20; 587-94.

Presents a bibliography of 115 scientific studies related to reading and summarizes significant findings.

1051

Gray, William Scott. "Summary of Reading Investigations: July 1, 1929 to June 30, 1930," Elementary School Journal, 31 (March and April 1931) 531-46; 592-606.

Presents an annotated bibliography of 107 scientific studies related to reading and summarizes important findings.

831

Gray, William S. "Summary of Reading Investigations: July 1, 1927 to June 30, 1928," Elementary School Journal, 29 (February and March 1929) 443-57; 496-509.

Presents an annotated bibliography of 101 investigations related to reading and summarizes the results reported.

717

Gray, William Scott. "Summary of Reading Investigations: July 1, 1926 to June 30, 1927," Elementary School Journal, 28 (February, March, and April 1928) 443-59; 496-510; 587-602.

Presents a bibliography of 113 studies of reading and summarizes the most important findings.

612

Gray, William S. "Summary of Reading Investigations: July 1, 1925 to June 30, 1926," Elementary School Journal, 27 (February and March 1927) 456-66; 495-510.

Summarizes briefly the findings and the conclusions of 56 investigations in reading and closely related topics.

536

Gray, William S. "Summary of Reading Investigations: July 1, 1924 to June 30, 1925," Elementary School Journal, 26 (February, March, April, and May 1926) 449-59; 507-18; 574-84; 662-73.

Summarizes briefly the findings and conclusions of 73 investigations in reading.

1476

Gray, William S. and Leary, Bernice E. "What Makes a Book Readable?" Journal of Adult Education, 6, Part 1 (October 1934) 408-11.

Presents a preliminary report on the need for readable books and the results of an extended study of the factors of expression which influence difficulty of comprehension.

2008

Gray, William S., et al. "Reading," Review of Educational Research, 10 (April 1940) 79-106, 154-60.

Presents a summary of the major findings of more than 300 scientific studies related to reading which were published between July 1, 1936, and June 30, 1939.

464

Greene, Harry A. "Directed Drill in the Comprehension of Verbal Problems in Arithmetic," Journal of Educational Research, 11 (January 1925) 33-40.

Presents the results of an experiment in four sixth-grade sections to determine the value of training pupils to select and recognize the processes involved in the solution of problems in arithmetic.

146

Greene, Harry A. "Measuring Comprehension of Content Material," Report of the Society's Committee on Silent Reading. Twentieth Yearbook of the National Society for the Study of Education, 20, Part 2, 114-16. (Bloomington, Illinois: Public School Publishing Co., 1921.)

Discusses the results of tests of the comprehension of content material and some of the causes of poor results.

1053

Gumlick, Helen R. and Allphin, Helen. "Improving Ability to Interpret Stories," Denver Public Schools Bulletin, 4 (January 1931) 2-4.

Describes the methods used and the results secured in efforts to improve the interpretation of stories among third- and fourth-grade pupils.

2347

Halbert, Marie Goodwin. An Experimental Study of Children's Understanding of Instructional Materials. Bulletin of the Bureau of School Service, 15, No. 4. (Lexington, Kentucky: Bureau of School Service, College of Education, University of Kentucky, 1943) 70 p.

Presents the results of a controlled experiment involving 234 pupils in 10 rural elementary schools in Kentucky to determine the extent to which illustrations contribute to the comprehension of reading matter.

2137

Hansburg, Henry. An Experimental Study of the Effect of the Use of the Print Shop in the Improvement of Spelling, Reading, and Visual Perception. Teachers College Contributions to Education, No. 776. (New York: Teachers College, Columbia University, 1939) 84 p.

Presents the results of a series of controlled experiments in grades 5 to 8 to determine certain psychological effects of printing activities, namely, to improve ability to spell, to decrease the reversal tendency, and to improve ability to read and comprehend.

466

Hansen, Einar August. The Effect of Certain Changes in Punctuation on Comprehension. (Unpublished Doctor's Theses, University of Iowa, 1925.)

Reports the results of a series of experiments with two comparable groups of sixth-grade pupils to determine the effects of changes in three uses of the comma.

2735

Harris, Chester W. "Measurement of Comprehension of Literature: II. Studies of Measures of Comprehension," School Review, 56 (June 1948) 332-42.

Discusses the nature of literary comprehension, describes the construction of a test of comprehension of literature, and presents a factor-analysis study of the test materials to determine the presence or absence of subject-matter and behavior-type factors.

941

Hathaway, Gladys M. "Vocabulary Difficulties in a Fourth Grade History Test," University of Pittsburgh School of Education Journal, 5 (June 1930) 116-23.

Presents an analysis of the vocabulary in a fourth-grade textbook in history and summarizes the results of comprehension tests involving the words.

164

Hendricks, Eldo L. A Study in Reading. (Newark, New Jersey: Silver, Burdett and Co., 1911) 32 p.

Reports the results of tests in grades 1A, 4A, and 8A to determine rate of reading and comprehension. Studies related problems.

1894

Herbers, Sister M. Benigna. "Comprehension Difficulties in a Third Grade Reader," Elementary English Review, 16 (February 1939) 53-57.

Describes the comprehension difficulties of 30 third-grade pupils as shown by inadequacies and inconsistencies in responses to tests based on their reader.

1172

Hilliard, George H. "Extensive Library Reading Versus Specific Drill as an Aid in Improving Certain Reading Abilities," Educational News Bulletin, 2, 6-12. (Kalamazoo, Michigan: Western State Teachers College, June 1932.)

Describes the methods used and the results secured in an experiment continuing for 8 weeks with fifth-grade pupils in six public schools.

171

Hilliard, George Horatio. Probable Types of Difficulties Underlying Low Scores in Comprehension Tests. University of Iowa Studies in Education, 2, No. 6. (Iowa City, Iowa: University of Iowa, 1924) 60 p.

Summarizes investigations concerning difficulties in comprehension. Presents results of studies of relation of six abilities to comprehension.

1058

Hilliard, George H. and Barnes, Marcillene. "The Effect of Specific Drill on Reading Ability," Elementary School Journal, 3 (February 1931) 417-26.

Describes the methods used and the results secured in a controlled experiment with sixth-grade pupils to determine the value of specific drill in phases of reading in which the pupils were deficient.

176

Hoover, J. H. "Motivated Drill Work in Third-Grade Silent Reading," Report of the Society's Committee on Silent Reading. Twentieth Yearbook of the National Society for the Study of Education, 20, Part 2, 77-89. (Bloomington, Illinois: Public School Publishing Co., 1921.)

Describes the effects of motivated drill in silent reading in the case of 1,139 pupils. Measures effects in terms of speed and comprehension.

189

Hunt, C. W. "Extensive Reading--A Factor in Developing Reading Ability," School and Society, 11 (February 28, 1920) 260-61.

Reports investigations with fourth-grade and seventh-grade pupils to determine the effect of wide reading on rate and comprehension.

1175

Jacobs, Emilie V. and Liveright, Alice K. "The Improvement of Study-Type Reading," The Principal and Supervision. Tenth Yearbook of the Department of Elementary School Principals, 455-59. (Washington: Department of Elementary School Principals of the National Education Association, 1931.)

Describes the results of 17 weeks of intensive training in study-type reading given to fourth-, fifth-, and sixth-grade pupils.

194

James, M. Elizabeth. "Using the Results of Measurement in Reading in Training Student-Teachers," Elementary School Journal, 23 (November 1922) 190-96.

Describes the procedure adopted to improve the comprehension of third-grade pupils.

2238

Johnston, J. W.; Coleman, J. H.; and Guiler, W. S. "Improving the Reading Ability of Elementary-School Pupils," Elementary School Journal, 42 (October 1941) 105-15.

Reports the procedures utilized and the results obtained in an experiment in remedial reading with fifth-grade pupils.

1180

Jones, Effie Butler. "A Comparison of Comprehension Results in Oral and Silent Reading," Peabody Journal of Education, 9 (March 1932) 292-96.

Compares the comprehension scores in oral and silent reading for pupils in grades 3, 5, and 7 from five types of schools.

2656

Kaiser, Esther. "Why Some Children Fail in Reading," School and Community, 33 (May 1947) 208-09.

Reports the results of tests given to 52 children in grades 2 to 6 to determine causes for lack of progress in reading.

467

Kelty, Mary G. "Time-Expressions Comprehended by Children of the Elementary School," Elementary School Journal, 25 (March and April 1925) 522-28; 607-18.

Part 1 reports the results of an analysis of the vocabularies of 100 primers and readers for the primary grades to determine the time expressions used in children's literature. Part 2 presents the results of tests given to fourth-, fifth-, and sixth-grade pupils to determine their comprehension of time expressions.

218

King, Irving. "A Comparison of Slow and Rapid Readers," School and Society, 4 (November 25, 1916) 830-34.

Reports the results of an experiment to determine the effect on comprehension of increasing the speed of reading.

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Presents the results of experiments to determine to what extent ability to solve arithmetical problems is correlated with ability to comprehend the significance of printed matter.

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Lynch, Catherine F. "Corrective Practice with a Slow Group in Silent Reading," Chicago Schools Journal, 6 (April 1924) 305-08.

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Summarizes the results of an experiment with three unselected groups of sixth-grade pupils to determine what effect, if any, the broadcast of a musical radio program and a variety radio program have on their silent reading achievement.

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Summarizes the results of an experiment in the fifth grade to determine the relative merits of systematic versus incidental instruction in the reading of verbal problems.

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Compares the comprehension scores made by 1,112 sixth-grade pupils in eight school systems on a reading selection in its original form and as simplified by limiting the vocabulary to (1) the first 2,500 of the Thorndike Word List and (2) the words of the Ogden Basic English List.

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Compares the effect of an influenza epidemic on speed and comprehension of two groups of fifth- and sixth-grade pupils, one which had received visual training and the other which had not.

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Presents the results of short-exposure exercises in reading given to 400 children in grades 2 through 5 and discusses their implications.

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Reports the results of efforts in Seattle to increase speed and comprehension of silent reading in grades 4 to 8, inclusive.

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Reports the results of a study to determine whether the form or content of what is read affects comprehension.

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Rigby, Madella. "Jack Q.--A Clinic Study," Psychological Clinic, 18 (May and June 1929) 112-18.

Reports the case of a boy of very slow motor response and a low degree of comprehension.

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Presents data showing the relative importance of rate of reading and accuracy of comprehension in determining reading test scores.

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Rogers, Don C. "The Effect of Experience and Training of the Teacher on Improvement in Silent Reading Comprehension," Chicago Schools Journal, 6 (May 1924) 329-31.

Reports conclusions concerning the effect of the experience and the training of the teacher on improvement in silent reading comprehension. Presents facts for 166 classrooms.

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Reports results of a study to determine relative efficiency, in terms of comprehension, of oral and silent reading of good and poor readers under three conditions: (1) with time held constant, (2) with amount of reading held constant, and (3) with time varied.

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Presents correlations between the class marks and the comprehension scores of 1,124 sixth-, seventh-, and eighth-grade pupils.

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Discusses the methods and the results of an experiment to determine the effect on rate and comprehension in silent reading of the use of flash cards every day for 4 weeks.

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Seashore, R. H.; Stockford, L. B. O.; and Swartz, B. K. "A Correlational Analysis of Factors in Speed of Reading Tests," School and Society, 46 (August 7, 1937) 187-92.

Presents data which indicate that speed of visual recognition and speed of comprehension are two different functions.

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Presents the results of an experiment among 1,074 fifth-, sixth-, and seventh-grade pupils to determine the effect of specific training in reading historical materials.

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Slama, Emma A. "A Silent Reading Poster Lesson," Chicago Schools Journal, 6 (December 1923) 142-44.

Describes the methods used and presents the results secured in improving comprehension in a primary grade.

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Smith, Henry Lester and Eaton, Merrill T. Analysis of the Proficiency in Silent Reading of 15,206 Sixth Grade Pupils in 648 Schools in Indiana. Bulletin of the School of Education, Indiana University, 21, No. 6. (Bloomington, Indiana: Bureau of Cooperative Research and Field Service, School of Education, Indiana University, 1945) 52 p.

Summarizes scores made on the Iowa Silent Reading Tests (Revised), Form BM, and draws significant conclusions concerning the influence on progress in reading of such factors as number of grades in classroom, size of classes, time devoted to reading, whether taught as special subject or combined with social studies, etc.

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Sperzel, Edith Z. "The Effect of Comic Books on Vocabulary Growth and Reading Comprehension," Elementary English, 25 (February 1948) 109-13.

Presents the results of an experiment to determine the effect of reading comic books in school upon growth in vocabulary and reading comprehension.

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Springsteed, Clara B. "Improving Speed and Comprehension in Reading," Journal of Educational Method, 5 (October 1925) 48-52.

Reports the results of successful efforts to improve the speed and comprehension of reading of pupils in 85 classrooms in grades 4 through 8.

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Challenges the validity of previous studies of the relationship between speed and comprehension in reading. Presents the results of three experiments concerned with the relationship between rate of reading and learning efficiency.

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Stroud, J. B. and Lindquist, E. F. "Sex Differences in Achievement in the Elementary and Secondary Schools," Journal of Educational Psychology, 33 (December 1942) 657-67.

Compares the achievement of boys and girls on the Iowa Every-Pupil Basic Skills and the Iowa Every-Pupil Tests of High School Achievement, both of which include reading comprehension.

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Thorndike, Edward L. "The Measurement of Ability in Reading," Teachers College Record, 15 (September 1914) 207-27.

Outlines phases of reading ability. Describes a visual vocabulary scale and a scale for measuring the understanding of sentences.

378

Thorndike, Edward L. "Reading as Reasoning: A Study of Mistakes in Paragraph Reading," Journal of Educational Psychology, 8 (June 1917) 323-32.

Presents typical errors of interpretation in paragraph reading. Discusses their psychological and pedagogical significance.

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Thorndike, Edward L. "The Understanding of Sentences: A Study of Errors in Reading," Elementary School Journal, 18 (October 1917) 98-114.

Describes the mistakes made by pupils in interpreting paragraphs. Presents conclusions concerning the nature of interpretation.

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Thurstone, L. L. "Note on a Reanalysis of Davis' Reading Tests," Psychometrika, 11 (September 1946) 185-88.

Reanalyzes by the Spearman unidimensional method the data presented by Frederick B. Davis in "Fundamental Factors of Comprehension in Reading," Psychometrika, 1944, 9, 155-97.

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Tiffin, Joseph, Ed. Studies in Psychology of Reading, 1, University of Iowa Studies in Psychology, No. 21. Psychological Monographs, 48, No. 3. (Princeton, New Jersey: Psychological Review Co., 1937) 150 p.

Reports six research studies made in the reading clinic at the State University of Iowa dealing with such problems as eye movements of

good and poor readers, common elements in silent and oral reading, common factors in eye movements in silent and oral reading, an eye-voice camera for clinical and research studies, the relation between eye movements and voice in reading, and the relation between maturation in certain visual functions and success in reading and arithmetic.

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Tinker, Miles A. "Dr. Robinson on Speed Versus Comprehension in Readings. A Discussion," Journal of Educational Psychology, 31 (October 1940) 559-60.

Analyzes Robinson's criticisms of Tinker's discussion of the relationship between speed and comprehension to determine if they are based on misinterpretation or divergence in viewpoints.

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Tinker, Miles A. "The Relation of Speed to Comprehension in Reading," School and Society, 36 (July 30, 1932) 158-60.

Reviews various studies of the relation between speed and comprehension in reading.

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Tireman, L. S. and Woods, Velma E. "Aural and Visual Comprehension of English by Spanish-Speaking Children," Elementary School Journal, 40 (November 1939) 204-11.

Compares the aural and visual comprehension of 47 Spanish-speaking children in grades 5 to 8 on the Durrell-Sullivan Reading Capacity and Achievement Tests.

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Traxler, Arthur E. and Seder, Margaret A. "Summary and Selected Bibliography of Research Relating to the Diagnosis and Teaching of Reading, October 1937 to September 1938." Educational Records Supplementary Bulletin C. (New York: Educational Records Bureau, 1938) 21 p.

Presents a summary and annotated bibliography of 65 items related to the diagnosis and teaching of reading.

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Includes an annotated bibliography of 527 references, published between January 1, 1940 and January 1, 1945 and classified under 20 headings. Summarizes important findings in each area.

889

Truax, Meriam and Pressey, L. C. "The Value of Drill in the Mechanics of Reading," Educational Research Bulletin (Ohio State University), 7 (October 17, 1928) 310-12.

Reports the effect of 2 months of diagnosis and training on the progress of a fourth-grade class in rate and comprehension of reading.

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Waldman, Bessie. "Definite Improvement of Reading Ability in a Fourth-Grade Class," Elementary School Journal, 21 (December 1920) 273-80.

Shows the effect of remedial instruction on the rate and comprehension of fourth-grade pupils.

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Waldo, Karl Douglas. "Tests in Reading in Sycamore Schools," Elementary School Journal, 15 (January 1915) 251-68.

Summarizes the results of tests given in six grades to determine the effect of practice for 6 months on speed and comprehension.

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Walker, Robert Y. "The Eye-Movements of Good Readers." University of Iowa Studies in Psychology, No. 17, 95-117. Psychological Monographs, 44, No. 3. (Princeton, New Jersey: Psychological Review Company, 1932.)

Analyzes the eye movements of good readers, including the effect of changes in difficulty of the material read and of alterations of comprehension upon eye movements.

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Williams, Corretta and McCabe, Merrill. "Improvement of Reading Ability in a Fourth-Grade Class," Chicago Schools Journal, 6 (October 1923) 54-56.

Reports the methods used and the results secured in efforts to improve comprehension in the case of a fourth-grade class.

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Wilson, Estaline. "Improving the Ability to Read Arithmetic Problems," Elementary School Journal, 22 (January 1922) 380-86.

Reports the methods and the results of training sixth-grade pupils to read arithmetic problems.

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Wilson, Frank T., et al. "Reading Progress in Kindergarten and Primary Grades," Elementary School Journal, 38 (February 1938) 442-49.

Summarizes data and presents conclusions from a 4-year study concerning certain factors which influence progress in primary reading, particularly abilities with letter forms and sounds.

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Wilson, Mary Caroline. "The Effect of Amplifying Material upon Comprehension," The Journal of Experimental Education, 13 (September 1944) 5-8.

Gives test data from 405 pupils in grades 6 and 7 to determine the effect of amplification of general statements upon the reading comprehension of children in the intermediate grades.

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Woody, Clifford. "Intrinsic Difficulties of Certain Reading Materials," Peabody Journal of Education, 17 (November 1939) 149-60.

Refers briefly to three sets of factors that condition reading achievements. Presents (1) evidence of the vocabulary burden of certain reading materials and (2) difficulties due to sentence length and structure and to pupils' meagerness of experience.

1967

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Contrasts eight "activity" and eight "non-activity" elementary schools matched for neighborhood, chronological age, grade position, and intelligence to determine relative standings of the groups on various attitude and achievement tests, including reading speed and comprehension tests.

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Young, William E. "The Relation of Reading Comprehension and Retention to Hearing Comprehension and Retention," Journal of Experimental Education, 5 (September 1936) 30-39.

Presents findings based on the results of an experiment with pupils in grades 4, 5, and 6 of six school systems, five in Iowa and one in Texas.

Author Index

The number given after an author's name is a page reference. Entries by more than one author are indexed by the senior author only.

A

Abbott, Janet Mary, 35
Abell, Adelaide M., 107
Agnew, Donald C., 107
Alderman, Everett, 107
Alderman, Grover H., 107, 108
Allen, Robert L., 69
Anderson, C. J., 108
Anderson, Irving H., 108
Anderson, J., 69
Arnsdorf, Val E., 69
Artley, A. S., 108
Ayer, Adelaide M., 109

B

Bakker, Dirk J., 70
Ballard, P. B., 109
Bamman, Henry A., 35
Baranyai, Erzsebet I., 109
Bashaw, W. L., 70
Bear, Mata Virginia, 109
Bedwell, Robert Lafayette, 109
Bellin, Adelaida Peinado, 13
Bentley, Madison, 110
Benz, Donald A., 87
Berson, Minnie Perrin, 35
Betts, Emmett Albert, 110
Blanton, Smiley, 110
Bloomer, Richard H., 36
Boggs, Lucinda Pearl, 111
Bonner, Myrtle Clara Studdard, 13
Bormuth, John R., 71, 87, 88
Breed, Frederick S., 111
Broom, M. E., 111
Brown, Don Arlen, 36
Bryan, Quentin R., 14
Burgess, May Ayres, 111
Burk, Cassie, 112
Burks, Jesse D., 112
Burton, Cassie B., 112

C

Cabell, Elvica D., 112
Carlson, Thorsten R., 112
Carroll, Robert P., 113
Caskey, Helen J., 37
Chall, Jeanne S., 113
Charles, H., 37
Chronister, Glenn Morrison, 14
Clymer, Theodore, 97
Coffing, Esther A., 113
Cohen, Dorothy H., 38
Coulter, Merle Aline, 113
Coulter, Myron L., 38
Courtney, Douglas, 113
Cutright, Prudence, 114

D

Davis, Frederick B., 114
Dearborn, Frances R., 114
Deighton, Lee C., 72
Department of Education and Science (British Government), 88
Dewey, Joseph C., 114
Dransfield, J. Edgar, 115
Duffy, Rita Martin, 39
Durrell, Donald D., 97, 115

E

Eagle, Edwin, 115
Early, Joseph Franklin, 72
Eckert, Mollie Horton, 115
Eikind, David, 39
Eller, William, 89
Emans, Robert, 72
Eurich, Alvin C., 115
Evans, Laura Katherine, 40

F

Fairchild, Frances Elizabeth, 73
Fennell, Ethel L., 116

Fishback, Archer William, 116
Fledderjohann, William Clarence, 40
Fleming, James Thomas, 15
Foran, T. G., 116
Foster, Thomas Gray, 41
Freeman, Helen Viola, 73
Gallant, Ruth Margaret Frances,
74, 75

G

Gammon, Agnes L., 75
Gans, Roma, 116
Gaudette, R. Dean, 41
Georges, J. S., 117
Germane, Charles E., 117
Gibbons, Helen D., 117
Gilliland, A. R., 117
Gist, Arthur S., 117
Glaser, Nicholas Adam, 15
Goodman, Kenneth S., 75, 76
Goodykoontz, Bess, 117
Graham, Robert J., 41
Gray, Clarence Truman, 118
Gray, William S., 97, 98, 118, 119,
120, 121, 122, 123
Greene, Harry A., 123
Griffin, Vernon Haywood, 42
Groff, Patrick J., 16
Gumlick, Helen R., 123
Guszak, Frank James, 43, 44

H

Hafner, Lawrence Erhardt, 44
Hahn, Harry T., 45
Halbert, Marie Goodwin, 123
Halliwell, Joseph W., 16
Hansburg, Henry, 124
Hansen, Einar August, 124
Harris, Chester W., 124
Harris, Larry A., 99
Harris, Theodore L., 99
Hathaway, Gladys M., 124
Henderson, Edmund H., 17
Hendricks, Eldo L., 124
Henry, Nelson B., 100
Herbers, Sister M. Benigna, 125
Hill, Margaret Keyser, 46
Hilliard, George Horatio, 125
Holland, Ruth Esther, 46

Hollingsworth, Paul M., 46
Hoover, J. H., 125
Hunkins, Francis P., 46
Hunnicut, C. W., 100
Hunt, C. W., 126

J

Jacobs, Emilie V., 126
James, M. Elizabeth, 126
Jan-Tausch, James, 17, 18
Jenkinson, Marion D., 76
Jeter, Manelle Vincent, 18
Johnson, Joseph Carlton, II, 19
Johnston, J. W., 126
Jones, Effie Butler, 126
Kaiser, Esther, 127
Kelty, Mary G., 127
Kerfoot, James F., 47, 101
King, Irving, 127
King, W. H., 19
Koenke, Karl, 47
Koester, Paul William, 48
Koontz, Eunice Raby, 20

L

Lamana, Peter Anthony, 48
Lamoreaux, Lillian A., 127
Landry, Donald Lyle, 49
Lane, R. H., 128
Langer, John Henry, 49
Leavell, Ullin W., 128
Lidberg, Richard George, 89
Liddicoat, Elizabeth K., 50
Lieberman, Janet Elaine, 51
Lillich, Joseph Michael, 51
Limb, G., 128
Lindeman, Carol Ann, 52
Looby, Ruth, 128
Low, H. R., 128
Lundsteen, Sara, 20
Lynch, Catherine F., 129

M

Maney, Ethel S., 21, 90
Maney, James Junior, 21
Manwiller, C. E., 129
Mathews, C. O., 129
Maw, Wallace H., 22

McCanne, Roy, 52
McCracken, Robert A., 77, 90
McCullough, Constance, 90, 101
McKee, Paul, 52, 129
McLeod, Laurence Spurgeon, 130
McMahon, Ottis, 130
Mead, Cyrus D., 130, 131
Merritt, James, 53
Merson, Edna Mae, 54
Metsker, Carol Jo, 22
Miller, William A., 131
Mitchell, Adelle H., 131
Monroe, Walter S., 131
Montesi, Richard Lewis, 54
Morrison, J. Cayce, 131
Movsesian, Edwin Ara, 55
Murray, Elwood, 132
Myers, Dorothy Charlotte, 55

N-O

Neville, Donald, 23
Newlun, Chester Otto, 132
Nichols, Nancy Jane, 56
Nolte, Karl F., 132
Nurss, Joanne Ruth, 77, 78
Otto, Wayne, 56, 91

P

Pacheco, Antonia Darlene, 23
Parkins, George A., 132
Payne, Cassie Spencer, 133
Phipps, William Rodgers, 133
Pickford, R. W., 133
Piekarz, Josephine A., 24
Pont, H. B., 56
Potter, Charles, 133
Potter, Thomas C., 78
Pressey, Luella C., 133
Preston, Ralph C., 91

R

Research and Guidance Branch,
Department of Public Instruc-
tion, Queensland, 92
Rigby, Madella, 134
Robertson, Jean E., 79
Robinson, Francis P., 134
Robinson, H. Alan, 24

Robinson, Helen M., 101, 102
Rogers, Don C., 134
Rogers, Maurine V., 134
Roosinck, Esther Pauline, 25
Rosenberry, Frank L., 135
Rothrock, Dayton G., 57
Rowell, Charles Glennon, 25
Ruark, Roger D., 26
Ruddell, Robert B., 26, 27, 58,
79, 80

S

Saltz, Martin, 58
Samuels, S. Jay, 80
(Schlueter), Sister Mary Peter, 27
Schneyer, J. Wesley, 59
Schutz, Richard, 59
Scott, Robert E., 135
Seashore, R. H., 135
Serra, Mary C., 28
Shane, Harold G., 102
Sheldon, William D., 29, 60
Shnayer, Sidney William, 29
Shores, J. Harlan, 92
Simpson, Robert Gilkey, 135
Skarbels, James Francis, 60
Slama, Emma A., 135
Smith, Henry Lester, 136
Snaveley, Eloise Alberta, 61
Sochor, E. Elona, 29
Sperzel, Edith Z., 136
Springsteed, Clara B., 136
Stanchfield, Jo M., 61
Sterritt, Graham M., 30
Stiglmeier, John Joseph, 30
Strang, Ruth, 31
Stroud, J. B., 136

T

Tagatz, Glenn E., 62
Tatham, Susan M., 81
Taylor, Wilson L., 81
Teigland, Anna Elizabeth, 62
Thorndike, Edward L., 137
Thurstone, L. L., 137
Tiffin, Joseph, 137
Tinker, Miles A., 138
Tireman, L. S., 138
Traxler, Arthur E., 102, 138, 139

Trione, Verdun, 63
Truax, Meriam, 139

V-W

Vilscek, Elaine C., 63
Waldman, Bessie, 139
Waldo, Karl Douglas, 139
Walker, Robert Y., 139
Weintraub, Samuel, 64, 82
Werner, Heinz, 82
Whipple, Gertrude, 64
Williams, Corretta, 140
Williams, David Lee, 64, 65
Williams, Joanna P., 103

Wilson, Estaline, 140
Wilson, Frank T., 140
Wilson, H. A., 65
Wilson, Mary Caroline, 140
Wolf, Richard M., 93
Woody, Clifford, 140
Wrightstone, J. W., 141

Y-Z

Young, William E., 141
Youtz, Adella C., 66
Zemen, Samuel Steve, 82
Zink, Blanche Phyllis, 31

Appendix A

Instructions for ordering microfiche and hard copy document reproductions from the ERIC Document Reproduction Service

Documents are available from:

ERIC Document Reproduction Service
The National Cash Register Company
4936 Fairmont Avenue
Bethesda, Maryland 20014

This information must be furnished to order documents:

1. The accession number (ED number) of the desired document.
2. The type of reproduction desired--microfiche or hard copy.
3. The number of copies being ordered.
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 - a. Add a special handling charge of 50¢ to all orders.
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 - d. Payment must accompany orders totaling less than \$5.00. Do not send stamps.
 - e. \$20.00 prepaid EDRS coupons are available upon request from EDRS.

EDRS will provide information on charges and deposit accounts upon request.

Appendix B

Instructions for ordering microfilm and xerography document reproductions from University Microfilms

Documents are available from:

University Microfilms
A Xerox Company
300 North Zeeb Road
Ann Arbor, Michigan 48106

This information must be furnished to order documents:

1. The publication number
2. The author's name
3. The type of reproduction desired--microfilm or hardbound xerography
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Further information can be obtained by writing University Microfilms.

ERIC/CRIER Reading Review Series Bibliographies

Available from the ERIC Document Reproduction Service

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- Bibliography 1, Recent Reviews and Bibliographic Resources for Reading Research. August 1967.
ED 013 344, microfiche \$0.50, hard copy \$4.50.
- Bibliography 2, Recent Doctoral Dissertation Research in Reading. September 1967.
ED 012 693, microfiche \$1.00, hard copy \$11.05.
- Bibliography 3, International Reading Association Conference Proceedings Reports on Secondary Reading. September 1967.
ED 013 185, microfiche \$2.25, hard copy \$30.70.
- Bibliography 4, International Reading Association Conference Proceedings Reports on Elementary Reading. October 1967.
ED 013 197, microfiche \$4.25, hard copy \$56.85.
- Bibliography 5, USOE Sponsored Research on Reading. March 1968.
ED 016 603, microfiche \$0.50, hard copy \$5.30.
- Bibliography 6, Title III (PACE) Projects on Reading. March 1968.
ED 017 409, microfiche \$0.25, hard copy \$2.50.
- Bibliography 7, Reports on Reading and the Disadvantaged: Elementary Level. April 1968.
ED 015 350, microfiche \$0.50, hard copy \$5.65.
- Bibliography 8, Reports on Reading and the Disadvantaged: Secondary Level. May 1968.
ED 016 146, microfiche \$0.50, hard copy \$4.35.
- Bibliography 9, A Citation Bibliography of Selected Sources on Dyslexia and Learning Disabilities. May 1968.
ED 020 865, microfiche \$0.50, hard copy \$4.00.
- Bibliography 10, Research on Reading in the Content Fields: Mathematics, Science, and Social Studies. July 1968.
ED 024 538, microfiche \$0.75, hard copy \$6.50.
- Bibliography 11, Research on Reading in the Content Fields: Language Arts and Literature. September 1968.
ED 024 539, microfiche \$1.00, hard copy \$11.45.

- Bibliography 12, Research on Reading in the Content Fields: General and Other Subjects. October 1968.
ED 024 537, microfiche \$0.50, hard copy \$6.05.
- Bibliography 13, Title III (PACE) Projects on Reading, 1967. August 1968.
ED 023 568, microfiche \$0.50, hard copy \$4.45.
- Bibliography 14, Recent Doctoral Dissertation Research in Reading, Supplement 1. March 1969.
ED 028 055, microfiche \$0.75, hard copy \$9.00.
- Bibliography 15, Research on Elementary Reading: Reading Readiness. March 1969.
ED 029 163, microfiche \$0.50, hard copy \$6.30.
- Bibliography 16, Title III (PACE) Projects on Reading, 1968. March 1969.
ED 029 162, microfiche \$0.25, hard copy \$2.75.
- Bibliography 17, Research on Elementary Reading: Word Recognition. June 1969.
ED 028 310, microfiche \$0.50, hard copy \$6.05.
- Bibliography 18, Research on Reading: Word Lists. September 1969.
ED 030 778, microfiche \$0.25, hard copy \$2.90.
- Bibliography 19, Research on Elementary Reading: Critical and Interpretive Reading. September 1969.
ED 030 779, microfiche \$0.50, hard copy \$3.10.
- Bibliography 20, USOE Sponsored Research on Reading, Supplement 1. September 1969.
ED 031 606, microfiche \$0.50, hard copy \$3.05.
- Bibliography 21, Current USOE Projects on Reading. September 1969.
ED 031 607, microfiche \$0.25, hard copy \$0.90.
- Bibliography 22, Research on Reading from Research in Education. November 1969.
ED 032 453, microfiche \$1.50, hard copy \$20.10.
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