

DOCUMENT RESUME

ED 049 906

RE 003 594

AUTHOR Farr, Roger, Comp.
TITLE Measurement of Reading Achievement. An Annotated Bibliography.
INSTITUTION Indiana Univ., Bloomington. ERIC Clearinghouse on Reading.
PUB DATE Apr 71
NOTE 96p.
AVAILABLE FROM International Reading Association, 6 Tyre Ave., Newark, Del. 19711 (\$1 to members, \$1.50 to nonmembers)

EDRS PRICE MF-\$0.65 HC Not Available from EDRS.
DESCRIPTORS Achievement Tests, *Annotated Bibliographies, Bibliographies, Evaluation, Informal Reading Inventory, *Measurement, *Measurement Instruments, *Reading Achievement, Reading Diagnosis, Reading Skills, *Reading Tests, Standardized Tests, Testing Programs, Test Reliability, Test Validity

ABSTRACT

One of a series of reading research profiles developed from the ERIC/CRIER data base, this annotated bibliography which focuses on the assessment of reading behavior is aimed primarily at researchers but is also relevant for test developers and users. The included studies cover the years 1950 to 1969 and were selected from published journal literature, dissertations, USOE-sponsored research, and International Reading Association conference proceedings. Part 1 examines organismic, test composition, and environmental factors which affect validity and reliability of tests and includes empirical studies of such factors. Part 2 cites studies which examine validity and reliability problems related to vocabulary, comprehension, word attack, rate, study skills, oral reading, and other subareas of reading. Informal reading achievement measures, including informal reading inventories, check lists, rating scales, and teacher evaluations are discussed in Part 3. Multiple criteria use and other problems of measuring reading growth are considered in Part 4, school-wide testing programs are cited in Part 5, and unique approaches to measuring reading achievement are described in Part 6. An author index and ordering instructions for document reproductions are included. (MS)

Measurement of Reading Achievement

an annotated bibliography by

Roger Farr

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ERIC/CRIER—International Reading Association

Reading
Research
Profiles

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READING RESEARCH PROFILES
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Measurement of Reading Achievement

Compiled by
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U. S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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April 1971

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Information on the ERIC System:

ERIC and ERIC/CRIER

ERIC is a decentralized, national information system which acquires, abstracts, indexes, stores, retrieves, analyzes, and disseminates significant and timely educational information. ERIC's full name is the Educational Resources Information Center, and it is funded through the Bureau of Research, USOE. ERIC was founded to reduce limitations in the identification, transfer, and use of educational information. In short, the major goal of ERIC is to enable school administrators, teachers, researchers, information specialists, professional organizations, graduate and undergraduate students, and the general public to keep up-to-date on research and research-related knowledge in education. ERIC accomplishes this through strengthening existing educational information services and providing additional ones.

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

Measurement of Reading Achievement focuses on the problems and procedures of assessing reading behavior. This bibliography will probably be used more extensively by researchers than by any other group. However, text consumers and test developers interested in specific reading measurement problems will find sections which are of interest and help to them.

The scope of the bibliography is best described by its six major categories, which structure its parts. Part I is a listing of literature on the organismic, test composition, and environmental influences affecting standardized reading test validity and reliability. A final section of this part compiles related empirical studies. Part II offers literature on validity and reliability problems of reading measurement by specific subskills and subareas.

In Part III studies and reports on various kinds of informal reading achievement are compiled; and Part IV gathers literature on the problems of reading growth measurement. The literature cited in Part V is on studies and discussions of school reading-testing programs; and Part VI is a bibliography on experimental and unique approaches to reading ability measurement.

An author index across all the parts of this bibliography is offered at the back of the volume.

Research reports on the measurement and evaluation of reading materials, teachers, and programs are not included. Neither are studies of the problems of measuring variables such as vision and hearing when they are treated only as reading-related skills. Descriptive studies of levels of reading achievement are also excluded. All these topics will be covered by other ERIC/CRIER bibliographies in this series.

Citations in *Measurement of Reading Achievement* are arranged alphabetically according to the author's last name within each category. The studies included cover the years 1950 to 1969 and were taken from ERIC/CRIER's data base which is composed of materials selected from published journal literature, dissertations, USOE-sponsored research, and the conference proceedings of the International Reading Association.

Following is a description of the Basic References that compose this data base. Each of these reference sources can be ordered by ED number in microfiche and hard copy reproductions at listed prices from the ERIC Document Reproduction Service (EDRS), 4936 Fairmont Avenue, Bethesda, Maryland 20014. This information follows the title of each reference. (See appendix for complete EDRS ordering information.) 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).
- * *Published Research Literature in Reading, 1950-1963*
(ED 012 834, microfiche \$1.50, hard copy \$19.90 from EDRS).
- * *Published Research Literature in Reading, 1964-1966*
(ED 013 969, microfiche \$0.75, hard copy \$9.10 from EDRS).

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.
- * *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.
- * *Recent Doctoral Dissertation Research in Reading, Supplement 1*
(ED 028 055, microfiche \$0.75, hard copy \$9.00 from EDRS).
Covers 1966 to 1968.
- * *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.

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 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).

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).

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.

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

Factors Affecting Standardized Reading Test Validity and Reliability

Part I cites studies which have examined the effects of various factors on the reliability and validity of reading tests. These factors include (1) organismic influences such as vision, sex, hearing, and mental ability; (2) test composition influences such as readability, length, directions, and timing; and (3) environmental influences such as socioeconomic background. The fourth section contains empirical studies.

Section 1: Organismic Influences

Altus, W.D. "The Relationship Between Vocabulary and Literacy When Intelligence is Held Constant," *Journal of Social Psychology*, 31 (May 1950) 299-301.

Bases conclusions on scores made by 156 Negro and native-born white illiterates on the Wechsler Mental Ability Scale, Form B, and the Standardized Oral Reading Paragraphs.

Ames, Louise B. and Walker, Richard N. "Prediction of Later Reading Ability from Kindergarten Rorschach and I.Q. Scores," *Journal of Educational Psychology*, 55 (October 1964) 300-13.

Tests 54 kindergarteners on the Rorschach and Wechsler Intelligence Scale for Children (WISC) to predict later reading skills at fifth-grade level.

Anderson, Irving H.; Hughes, Byron O.; and Dixon, V. Robert. "Age of Learning to Read and Its Relation to Sex, Intelligence, and Reading Achievement in the Sixth Grade," *Journal of Educational Research*, 49 (February 1956) 447-53.

Bases conclusions upon the records of 142 boys and 175 girls who received all of their early reading instruction in the University Elementary School, University of Michigan.

Balow, Irving H. "Sex Differences in First Grade Reading," *Elementary English*, 40 (March 1963) 303-06, 320.

Compares reading readiness, as measured by the Gates Reading Readiness Tests, of 151 boys with 151 girls in 32 first-grade classrooms and examines reading achievement at the end of 1 semester, with readiness scores held constant, to explain sex differences.

Bliesmer, Emery P. "Reading Abilities of Bright and Dull Children of Comparable Mental Ages," *Journal of Educational Psychology*, 45 (October 1954) 321-31.

Bases conclusions upon a comparison of scores in seven specific aspects of

Factors Affecting Standardized Reading Test Validity and Reliability

comprehension of 28 bright pupils aged 10 years or less and 28 dull pupils aged 14 years or above, having comparable mental ages within 6 months' intervals between 10-7 and 12-6.

Cardon, Bartell W. "Sex Differences in School Achievement," *Elementary School Journal*, 68 (May 1963) 427-34.

Reviews studies dealing with sex differences in reading performance, citing 41 sources.

Cawley, John F. "Reading Performance among the Mentally Handicapped, A Problem in Assessment," *Training School Bulletin*, 63 (May 1966) 11-16.

Relates the administering of a reading achievement test and two diagnostic reading tests to 67 mentally handicapped children, makes comparisons between high and low achievers on the diagnostic reading tests, and computes coefficients of intercorrelation among subscores of the diagnostic tests.

Coull, William H. "A Normative Survey of Reading Achievement of Alberta Children in Relation to Intelligence, Sex, Bilingualism, and Grade Placement," *Alberta Journal of Educational Research*, 2 (March 1956) 18-29.

Bases conclusions on the results of scores made by 1,870 pupils in grades 4 and 7, carefully selected in respect to geographic, socioeconomic, and language factors, on the California Short-Form Test of Mental Maturity and the California Reading Tests.

Cowen, Emory L., et al. "The Relation of Anxiety in School Children to School Record, Achievement, and Behavioral Measures," *Child Development*, 36 (September 1965) 685-95.

Correlates responses of two independent samples totaling 394 third-grade pupils on an anxiety scale with the pupils' performance on 22 criterion measures among which were two reading tests.

Edson, William H.; Bond, Guy L.; and Cook, Walter W. "Relationships Between Visual Characteristics and Specific Silent Reading Abilities," *Journal of Educational Research*, 46 (February 1953) 451-57.

Reports the results of a study to determine the relationship, if any, between variations in 10 measures of silent reading skills and 13 tests of visual characteristics in the case of 188 fourth-grade pupils in four schools of St. Paul, Minnesota.

Edwards, Donald Lewis. *The Relation of Concept of Reading to Intelligence and*

Organismic Influences

Reading Achievement of Fifth Grade Children. 187 p. (Ed.D., University of Buffalo, 1962) *Dissertation Abstracts*, 23, No. 5, 1603-04. Order No. 62-4637, microfilm \$2.75, xerography \$8.60 from University Microfilms.

Relates the development of a reading concept test, based on verbal and nonverbal samples of reading behavior, in which students chose between descriptive phrases which appeared to be of equal value but were different in validity.

Ford, Marguerite P. "Auditory-Visual and Tactual-Visual Integration in Relation to Reading Ability," *Perceptual and Motor Skills*, 24 (June 1967) 831-41.

Correlates an auditory-visual test, tactual-visual test, intelligence test, and reading achievement measures for 121 fourth-grade boys and relates the intersensory tasks to type of reading errors made on an oral diagnostic reading test.

Fransella, Fay and Gerver, David. "Multiple Regression Equations for Predicting Reading Age from Chronological Age and WISC Verbal I.Q.," *British Journal of Educational Psychology*, 35 (February 1965) 86-89.

Calculates equations from data available in records of 500 children ranging from 6.2 to 15 years of age to obtain the predictive reading age on the Schonell Graded Word Reading Test.

Freeburne, Cecil Max. "A Study of the Relationship Between Figural After-Effect and Reading-Test Performance," *Journal of Educational Psychology*, 43 (May 1952) 309-12.

Presents product-moment correlation coefficients between the number of positive figural aftereffects in the case of 24 psychology students and their subtest standard scores on the Iowa Silent Reading Test.

Frost, Barry P. "Intelligence, Manifest Anxiety and Scholastic Achievement," *Alberta Journal of Educational Research*, 11 (September 1965) 167-75.

Determines the relationship between anxiety, IQ, and scholastic achievement scores for 55 fourth-grade and 113 sixth-grade children from results of a battery of intelligence, manifest anxiety, and reading and arithmetic achievement tests.

Groff, Catherine Ann. *An Investigation of the Relationship Between Neurological Dysfunction and Reading Achievement.* 113 p. (Ed.D., Indiana University, 1968) *Dissertation Abstracts*, 29, No. 7, 2035-A. Order No. 68-17,266, microfilm \$3.00, xerography \$5.60 from University Microfilms.

Investigates a possible relationship between manifest neurological dysfunctioning and reading achievement by testing 300 fourth-grade pupils from low, middle, and high socioeconomic levels.

Factors Affecting Standardized Reading Test Validity and Reliability

Haberland, John A. "A Comparison of Listening Tests with Standardized Tests," *Journal of Educational Research*, 52 (April 1959) 299-302.

Compares the scores made on three listening tests by 110 freshman college students who were classified into two groups on the basis of reading ability—one above-and the other below-average.

Hage, Dean S. and Stroud, James B. "Reading Proficiency and Intelligence Scores, Verbal and Nonverbal," *Journal of Educational Research*, 52 (March 1959) 258-62.

Reports correlations in the case of 800 ninth-grade pupils in 10 public schools, using scores on the Lorge-Thorndike Intelligence Tests, the Pressey Rate and Comprehension Tests, and the Iowa Tests of Basic Skills.

Hagenson, Sara Louise. *The Relation on First Grade Readiness and Achievement Scores Based on Sex, Race, and Age*. 99p. (Ph.D., University of Southern Mississippi, 1967) *Dissertation Abstracts*, 28, No. 9, 3362-A. Order No. 68-2935, microfilm \$3.00, xerography \$5.00 from University Microfilms.

Investigates the relationship, based on sex, race, and age, of scores on the 1965 revision of the Metropolitan Readiness Tests to Metropolitan Primary I Achievement Test scores for 421 first-grade children.

Hammermeister, Frieda Katherine. *The Stability of Reading Achievement in Deaf Adults*. 66 p. (Ph.D., University of Pittsburgh, 1967) *Dissertation Abstracts*, 28, No. 11, 4375-A. Order No. 68-7511, microfilm \$3.00, xerography \$3.80 from University Microfilms.

Examines the stability of reading achievement in 60 deaf adults 7 to 13 years after graduation from a school for the deaf.

Hinze, Helen K. "The Individual's Word Associations and His Interpretation of Prose Paragraphs," *Journal of General Psychology*, 64 (January 1961) 193-203.

Presents the relationship of the affective free associations to key words with the interpretation of two paragraphs among 25 college freshmen.

Hughes, Mildred C. "Sex Differences in Reading Achievement in the Elementary Grades," *Clinical Studies in Reading*. Supplementary Educational Monographs No. 77, 102-06. (Chicago: University of Chicago Press, 1953.)

Bases conclusions on an analysis of the scores made by pupils in grades 3 to 8 inclusive (an average of about 49 boys and 52 girls per grade) on the Science Research Associates Test of Primary Mental Abilities, the Chicago Reading Tests, the Van Wagenen-Dvorak Rate Test, and the Huelsman Word Discrimination Test.

Organismic Influences

Joseph, Michael P. and McDonald, Arthur S. "Psychological Needs and Reading Achievement," *New Concepts in College-Adult Reading*, Eric L. Thurston and Lawrence E. Hafner, Eds. Yearbook of the National Reading Conference, 13 (1964) 150-57.

Administers to 1,475 college freshmen, grouped according to performances on a standardized reading test, the Edwards Personal Preference Schedule, and compares the mean scores for the different reading achievement groups.

Kagan, Jerome. "Reflection-Impulsivity and Reading Ability in Primary Grade Children," *Child Development*, 36 (September 1965) 609-28.

Investigates relationship between measures of reading ability, visual analytic ability, and indexes of reflection-impulsivity administered to a group of 130 children in second half of grade 1. About 100 of the original group were retested for word-recognition ability early in grade 2 and again for oral reading and visual analytic ability in the spring of grade 2.

Lennon, Roger T. "The Relation Between Intelligence and Achievement Test Results for a Group of Communities," *Journal of Educational Psychology*, 41 (May 1950) 301-08.

Bases conclusions on data from 70 of the 250 communities which participated in the standardization of the 1946 edition of the Metropolitan Achievement Tests for which records were available for all pupils in grades 2 through 8.

Lepley, William M. "Delayed Validation for the Synonym Vocabulary Test - Forms I and II," *Journal of Psychology*, 59 (March 1965) 329-31.

Presents data of the predictive validity and reliability coefficients for two forms of the Synonym Vocabulary Test administered to 870 college graduates who took the test in 1954 when they were freshmen.

Lockhart, Hazel M. "A Comparison of Personality and Reading Scores of Fourth Grade Pupils: A Follow-Up," *Illinois School Research*, 5 (n.m. 1968) 8-10.

Examines the relationships between reading achievement and tests of personal and social adjustment of 15 boys and 16 girls and compares the coefficients with similar ones of the same children in the first grade.

Long, Barbara H. and Henderson, Edmund H. "Originality, Reading, and Arithmetic," *Perceptual and Motor Skills*, 21 (October 1965) 553-54.

Compares reading and arithmetic scores from a test of basic skills for two groups totaling 60 fifth- and sixth-grade pupils who scored high and low on a creativity test

Factors Affecting Standardized Reading Test Validity and Reliability

to determine whether the original child would score higher in reading and lower in arithmetic than the nonoriginal.

Manolakes, George and Sheldon, William D. "The Relation Between Reading-Test Scores and Language-Factors Intelligence Quotients," *Elementary School Journal*, 55 (February 1955) 346-50.

Presents correlation coefficients between mean scores on the Progressive Reading Tests and on the California Test of Mental Maturity in the case of from 36 to 74 pupils in each grade from 1 to 12 inclusive.

McClelland, David C. and Liberman, Alvin M. "The Effect of Need for Achievement on Recognition of Need-Related Words," *Journal of Personality*, 18 (December 1949) 236-51.

Compares the responses of 36 Wesleyan undergraduates to a thematic apperception test (TAT) and an anagrams test; and to a test including 30 words measuring ease or readiness with which need-related words are recognized.

McKillop, Anne Selley. *The Relationship Between the Reader's Attitude and Certain Types of Reading Response.* (New York: Bureau of Publications, Teachers College, Columbia University, 1952) 101 p.

Presents conclusions concerning relationships between the reader's verbally expressed attitudes and his responses to different types of questions, based upon evidence secured through three specially prepared reading tests given to 512 eleventh-grade students in 22 classes in the New York City area.

Morrison, Hugh E. and Collister, E. Gordon. "The Use of Difference Scores in the Interpretation of Test Results in Elementary Schools," *Kansas University Bulletin of Education*, 16 (Fall 1961) 19-25.

Presents a statistical procedure for equating the Stanford Achievement Test and the Otis Quick-Scoring Mental Test in order to calculate the percentage of individual score differences due to chance.

Moser, W.E. and Muirhead, Joseph V. "School Grade Last Completed by Military Enlisted Men as Factors in Tests of General Educational Development and American History," *Journal of Educational Research*, 43 (November 1949) 221-24.

Presents the results of tests of the interpretation of reading materials in the social sciences, natural sciences, and literature given to about 2,000 soldiers to determine whether reading ability increased with the grade last completed in high school.

Organismic Influences

Neville, Donald. "The Relationship Between Reading Skills and Intelligence Test Scores," *The Reading Teacher*, 18 (January 1965) 257-62.

Examines the performance of 148 fifth graders to determine (1) the influence of reading ability on group verbal intelligence test scores, (2) the reading level below which intelligence test scores are affected, and (3) the possibility of substituting a shorter measure for a longer one in testing intelligence, especially for poor readers.

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

Compares measures of reading comprehension and vocabulary before and after instruction for 54 boys aged 7 to 15 who were enrolled in a summer remedial reading program and relates the scores to subjects' measured anxiety level (high, middle, or low anxiety).

Prescott, George A. "Sex Differences in Metropolitan Readiness Test Results," *Journal of Educational Research*, 48 (April 1955) 605-10.

Bases conclusions on a statistical comparison of the test scores of 7,821 boys and 7,138 girls on the Metropolitan Readiness Test.

Rankin, Earl F., Jr. "Reading Test Reliability and Validity as Function of Introversion-Extroversion," *Journal of Developmental Reading*, 6 (Winter 1963) 106-17.

Presents three studies to determine the relationship between introversion-extroversion and reading test reliability and validity using high school and college students who took the SA-S Senior Scales. The cloze procedure, the Cooperative Reading Test, (C2), and the Survey Section of the Diagnostic Reading Test were used.

Reynolds, Maynard Clinton. "A Study of the Relationships Between Auditory Characteristics and Specific Silent Reading Abilities," *Journal of Educational Research*, 46 (February 1953) 439-49.

Presents the results of a statistical analysis of the scores made by 188 fourth-grade pupils on 14 measures of reading and auditory characteristics and specific silent reading abilities, as measured by the Gates Basic Reading Tests, Types A and D.

Robeck, Mildred C. "Children Who Show Undue Tension When Reading: A Group Diagnosis," *Challenge and Experiment in Reading*, J. Allen Figurel, Ed. International Reading Association Conference Proceedings, 7 (1962) 133-38.

Factors Affecting Standardized Reading Test Validity and Reliability

Presents a comparison of test scores of children attending a reading clinic, 20 of whom exhibited undue tension in contrast to 20 who did not, and takes into consideration oral reading errors, Wechsler Intelligence Scale for Children profiles, and a number of associated factors.

Rose, Florence C. "The Occurrence of Short Auditory Memory Span among School Children Referred for Diagnosis of Reading Difficulties," *Journal of Educational Research*, 51 (February 1958) 459-64.

Summarizes the results of the Auditory Memory Span Subtests on Form L of the Stanford Binet Intelligence Test given to 113 remedial reading cases to determine the difficulty of these tests for such pupils.

Scarborough, Olive R.; Hindsman, Edwin; and Hanna, Geneva. "Anxiety Level and Performance in School Subjects," *Psychological Reports*, 9 (October 1961) 425-30.

Gives a statistical analysis of the relationship between measures of anxiety and language arts (including reading) for 162 grade-7 pupils in four school centers.

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

Analyzes data secured from 100 fourth-grade pupils to determine comprehension of verbal abstractions and background of information and intelligence, the relation of each of these factors to ability to classify and to index, and the relationship between the last two items.

Simula, Vernon Leonard. *An Investigation of the Effects of Test Anxiety and Perceptual Rigidity upon Word Recognition Skill of Second Grade Children.* 90 p. (Ed.D., Indiana University, 1964) *Dissertation Abstracts*, 25, No. 10, 5751-52. Order No. 65-2398, microfilm \$2.75, xerography \$4.60 from University Microfilms.

Studies the effects of test anxiety and perceptual rigidity upon the acquisition of word recognition skills among 412 second-grade children.

Sinks, Naomi B. and Powell, Marvin. "Sex and Intelligence as Factors in Achievement in Reading in Grades Four Through Eight," *Journal of Genetic Psychology*, 106 (March 1965) 67-79.

Investigates the relationship among reading achievement, sex, and intelligence of 3,551 pupils in grades 4 through 8 to discover differences among underachievers, average achievers, and overachievers by sex, grade level, and intelligence.

Organismic Influences

Smith Joseph G. "Influence of Failure, Expressed Hostility, and Stimulus Characteristics on Verbal Learning and Recognition," *Journal of Personality*, 22 (June 1954) 475-93.

Discusses the methods and the results secured in a study involving 112 students to determine the effect of expressed hostility, nature of stimuli, and experimentally induced failure on paired-associate learning and visual recognition thresholds.

Stinson, Pairlee J. and Morrison, Mildred M. "Sex Differences among High School Seniors," *Journal of Educational Research*, 53 (November 1959) 103-08.

Presents an analysis of test scores for 36 boys and 33 girls to determine the relationships of the subtests of the Differential Aptitude Tests and the Cooperative English, C 2, to grade point average and to an abbreviated form of the Wechsler Adult Intelligence Scale.

Tabarlet, B. E. "Poor Readers and Mental Health," *Elementary English*, 35 (December 1958) 522-25.

Compares the scores of retarded and of average readers in the fifth grade of 29 white elementary schools in Baton Rouge on 10 items of the Mental Health Analysis, the retarded readers including pupils with an IQ of 86 or above and reading scores of 3.5 or below.

Townsend, Agatha. "The Stanford Achievement Tests: Results of Two Forms of the Revised Edition Administered Five Months Apart," *1954 Achievement Testing Program in Independent Schools and Supplementary Studies*. Educational Records Bulletin, No. 63, 59-67. (New York: New York Educational Records Bureau, July 1954.)

Presents correlations between the scores of 111 fifth-grade pupils on Intermediate Forms J and K of the most recent revision of the Stanford Achievement Test (including Paragraph and Word Meaning Sections) and the correlations between the scores of 144 seventh-grade pupils on the Advanced Forms J and K to determine their consistency of measurement.

Traxler, Arthur E. "Some Aspects of the Vocabulary of Independent Secondary School Pupils," *1964 Fall Testing Program in Independent Schools and Supplementary Studies*. Educational Records Bulletin, No. 87, 44-49. (New York: New York Educational Records Bureau, February 1965.)

Obtains scores on a vocabulary test for 906 students in grades 9 through 12 in eight independent schools to determine the test reliability for independent school population and to compare scores with the test norms, with school marks, and with reading comprehension scores.

Factors Affecting Standardized Reading Test Validity and Reliability

Traxler, Arthur E. and Spaulding, Geraldine. "Sex Differences in Achievement of Independent School Pupils as Measured by Stanford Achievement Test, Form K," *1954 Achievement Testing Program in Independent Schools and Supplementary Studies*. Educational Records Bulletin, No. 63, 69-80. (New York: New York Educational Records Bureau, July 1954.)

Bases conclusions upon the scores made by 200 or more boys and a corresponding number of girls in each of grades 3, 5, and 7 in 35 schools.

Triggs, Frances Oralind, *et al.* "The Relationship Between Specific Reading Skills and General Ability at the Elementary and Junior-Senior High School Levels," *Educational and Psychological Measurement*, 14 (Spring 1954) 176-85.

Reviews related studies and presents a statistical analysis of and correlations between the scores on the Wechsler-Bellevue Intelligence Scales and the Diagnostic Survey Tests: Survey Section, given to 40 pupils in grades 4 through 6 and to 36 students in grades 7 through 12.

Tyler, Fred T. "Organismic Growth: Sexual Maturity and Progress in Reading," *Journal of Educational Psychology*, 46 (February 1955) 85-93.

Analyzes data relative to reading ages and quotients of 57 boys and the age "of the onset of spurt" in sexual development to determine the relationship, if any, between sexual maturity and progress in reading.

Weintraub, Samuel. "What Research Says to the Reading Teacher—Sex Differences in Reading Achievement," *The Reading Teacher*, 20 (November 1966) 155-65.

Reviews 23 studies dealing with sex differences in reading achievement, possible causal factors, and ameliorative classroom procedures.

Wheeler, Lester R. and Wheeler, Viola D. "A Study of the Relationship of Auditory Discrimination to Silent Reading Abilities," *Journal of Educational Research*, 48 (October 1954) 103-13.

Reviews previous related studies, summarizes and interprets the results of a test given to 629 pupils in grades 4 to 6 inclusive, to determine the relation of ability to judge pitch of musical tones and ability to discriminate sounds in auditory language situations to (1) sight vocabulary and (2) silent reading comprehension.

Wozencraft, Marian. "A Comparison of the Reading Abilities of Boys and Girls at Two Grade Levels," *Journal of the Reading Specialist*, 6 (May 1967) 136-39.

Compares the reading achievement of boys and girls (564 third graders and 603 sixth graders) as a total group and then divided into three ability levels.

Test Composition Influences

Section 2: Test Composition Influences

Boag, Audrey K. and Neild, Margaret. "The Influence of the Time Factor on the Scores of the Triggs Diagnostic Reading Test as Reflected in the Performance of Secondary School Pupils Grouped According to Ability," *Journal of Educational Research*, 55 (December and January 1962) 181-83.

Studies results when 722 students in grades 9 through 12 took the vocabulary section of the Triggs Test, both timed and untimed, to determine which types of students changed position in the groups.

Coleman, E.B. "Learning of Prose Written in Four Grammatical Transformations," *Journal of Applied Psychology*, 49 (October 1965) 332-41.

Explains using undergraduate students in four experiments comparing pairs of grammatical transformations to determine whether complex sentences are stored in memory in the form of their underlying kernel sentences.

Cook, Desmond L. "A Comparison of Reading Comprehension Scores Obtained Before and After a Time Announcement," *Yearbook of National Council on Measurements Used in Education*, 14, 93-96. (Princeton, N.J.: Educational Testing Service, 1957.) (See also *Journal of Educational Psychology*, 48 (November 1957) 440-46.)

Compares the median scores of 100 slow and 200 rapid readers on comprehension tests at the time of college entrance to determine the comparative efficiency of each group before and after a time announcement.

Curr, W. and Gourlay, N. "The Effect of Practice on Performance in Scholastic Test," *The British Journal of Educational Psychology*, 30 (June 1960) 155-67.

Reports the extent of practice effect, as measured by tests in mechanical reading, reading comprehension and arithmetic, given at varying intervals of time to groups of 9- to 10-year-old children in four primary schools.

Forbes, Fritz W. and Cottle, William C. "A New Method for Determining Readability of Standardized Tests," *Journal of Applied Psychology*, 37 (June 1953) 185-90.

Compares the grade placement of 27 standardized tests according to each of five readability formulas, the average of the five formulas, and the application of the new Forbes Formula to items in and instructions for these tests.

Frederiksen, Norman. "The Influence of Timing and Instructions on Cooperative Reading Test Scores," *Educational and Psychological Measurements*, 12 (Winter 1952) 598-607.

Factors Affecting Standardized Reading Test Validity and Reliability

Compares the effects on means, standard deviations, intercorrelations and correlations with other measures of two methods of timing of parts 1 and 2 and of modified instructions for part 2 when the Cooperative English Test C2: Reading Comprehension (Higher Level), Form R, was given to two groups of entering college students.

Goudey, Charles Edward. *A Comparison of Children's Reading Performance under Directed and Non-Directed Conditions.* 91 p. (Ph.D., University of Minnesota, 1968) *Dissertation Abstracts*, 29, No. 10, 3460-A. Order No. 69-6811, microfilm \$3.00, xerography \$4.80 from University Microfilms.

Tests fourth-grade elementary students in Minnesota with the original and experimental forms of the New Developmental Reading Tests for the Intermediate Grades: Reading for Information and Reading for Appreciation.

Hanes, Bernard. "Reading Ease and MMPI Results," *Journal of Clinical Psychology*, 9 (January 1953) 83-85.

Analyzes the scores of 100 male penitentiary inmates on the Iowa Silent Reading Test and their responses to the Minnesota Multiphasic Personality Inventory to test the hypothesis that this inventory will communicate different amounts and not necessarily the identical information to subjects of limited reading ability.

Hayward, Priscilla. "A Comparison of Test Performance on Three Answer Sheet Formats," *Educational and Psychological Measurement*, 27 (Winter 1967) 997-1,004.

Investigates whether differences in reading test performances result from using three different kinds of answer sheets by testing 108 fourth graders and 126 eighth graders.

Johnson, Ralph H. and Bond, Guy L. "Reading Ease of Commonly Used Tests," *Journal of Applied Psychology*, 34 (October 1950) 319-24.

Compares the reading levels of adults with IQ's below 100 and the grade and reading ease level of certain intelligence tests through the use of the Flesch Formula of Readability and draws significant conclusions.

Jones, W.R. "The Language Handicap of Welsh-Speaking Children. A Study of Their Performance on an English Verbal Intelligence Test in Relation to Their Non-Verbal Mental Ability and Their Reading Ability in English," *British Journal of Educational Psychology*, 22 (June 1952) 114-23.

Test Composition Influences

Compares the performance of 117 Welsh-speaking children (bilingual) in five schools on a verbal intelligence test in English and a nonverbal test in Welsh and studies the differences found in relation to their reading ability in English.

Lamb, George Stanwood. *The Effect of Verbal Cues upon Second and Third Grade Pupils' Responses on a Group Reading Test*. 181 p. (Ph.D., The University of Minnesota, 1965) *Dissertation Abstracts*, 26, No. 10, 5871. Order No. 66-1668, microfilm \$3.00, xerography \$8.40 from University Microfilms.

Investigates the effects of two specific teacher-directed verbal cues upon the performance of second- and third-grade pupils on a group reading test.

Lamb, George S. "Teacher Verbal Cues and Pupil Performance on a Group Reading Test," *Journal of Educational Psychology*, 58 (December 1967) 332-36.

Evaluates the effects on performance of verbal cues encouraging (1) rapid work, (2) accurate work, or (3) no specified cues administered by 36 female student teachers to 18 second- and 18 third-grade classes.

Levy, Jerome. "Readability Level and Differential Test Performance, A Language Revision of the Study of Values," *Journal of Educational Psychology*, 49 (February 1958) 6-12.

Presents the results of an attempt to produce a more readable modification of the Allport-Vernon Study of Values that was equivalent to it in all other respects.

Lopez, Daniel Clarence. *Effects of Test Format on the Reading Scores of Fifth Grade Children*, 112 p. (Ed.D., Stanford University, 1962) *Dissertation Abstracts*, 23, No. 6, 1972-73. Order No. 62-5446, microfilm \$2.75, xerography \$5.60 from University Microfilms.

Measures the effect and preference of five typographical formats on fifth-grade students and finds type preference not to be a significant factor in reading achievement.

McDonald, Arthur S. "Factors Affecting Reading Test Performance," *Research and Evaluation in College Reading*, Oscar S. Causey and Emery P. Bliesmer, Eds. Yearbook of the National Reading Conference for College and Adults, 9 (1960) 28-35.

Summarizes test scores from 117 college freshmen and sophomores to determine the effect on reading rate and comprehension of varying the length of reading selections under different conditions of timing and the influence of specified personality dimensions on reading test performance.

Factors Affecting Standardized Reading Test Validity and Reliability

Netley, C.; Rachman, S.; and Turner, R.K. "The Effect of Practice on Performance in a Reading Attainment Test," *British Journal of Educational Psychology*, 35 (February 1965) 1-8.

Reports data obtained from four groups, totaling 68 children in a British primary school, who were given parallel forms of a reading test over two time intervals to examine the test's reliability and determine its sensitivity to practice effects.

Reed, Estella E. *An Investigation of the Relative Effect of the Study of Syntax and Paragraph Structure on Reading Comprehension of Monolingual and Bilingual Pupils in Grade Seven*. 144 p. (Ed.D., Indiana University, 1966) *Dissertation Abstracts*, 27, No. 6, 1721-A. Order No. 66-12,678, microfilm \$3.00, xerography \$6.80 from University Microfilms.

Investigates the effect of the study of syntax and paragraph structure on the reading comprehension of monolingual and bilingual seventh-grade students and finds that for the latter the effect is significant.

Riddle, William T. *A Study of the Effects of a Controlled Auditory Distraction Factor upon the Performance of Selected Students on an Oral Reading Test*, 103 p. (Ed.D., Texas Technological College, 1961) *Dissertation Abstracts*, 22, No. 9, 3096-97. Order No. 61-6683, microfilm \$2.75, xerography \$5.20 from University Microfilms.

Uses a recording of verbal description, music, and sound effects to measure the effect of a controlled auditory distraction factor on student performance on an oral reading test.

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

Compares with the cloze procedure, by the use of contrasting patterns of high and low frequency in spoken language, the comprehension of 131 grade-4 pupils, taking into consideration the occupation of fathers, the education of parents, and the student's intelligence, chronological age, and sex.

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

Concludes that reading comprehension is a function of the redundancy of the syntactical elements used in written materials.

Sayles, Daniel C. "The Effects of Medial Testing," *Journal of Developmental Reading*, 2 (Autumn 1958) 43-47.

Test Composition Influences

Reports the results of an experiment including 126 college students, both male and female, to determine the effect of medial testing on final test performance in a reading improvement course, meeting two 50-minute periods a week for 6 weeks.

Smith, Helen K. "The Development of Evaluation Instruments for Purposeful Reading," *Journal of Reading*, 8 (October 1964) 17-23.

Describes the development of a test of purpose that consists of two parts, the first evaluating a student's ability to read for different purposes and the second examining responses of students who read 12 selections for a different pre-stated purpose to ascertain how they read each selection.

Spaulding, Geraldine. "A Note on the Interpretation of Scaled Scores for Form Z of the Cooperative English Test," *1953 Achievement Testing Program in Independent Schools and Supplementary Studies*. Educational Records Bulletin No. 61, 72-74. (New York: Educational Records Bureau, July 1953.)

Presents median scores of independent school pupils on various forms of the Cooperative English Test which show that the Form Z tables for converting level of comprehension raw scores into scaled scores do not succeed in yielding lower level scores that are equivalent to scores on earlier forms or to scores on the higher level of Form Z.

Swineford, Frances and Miller, Peter M. "Effects of Directions Regarding Guessing on Item Statistics of a Multiple-Choice Vocabulary Test," *Journal of Educational Psychology*, 44 (March 1953) 129-39.

Summarizes and interprets data from 801 testees to determine the amount of guessing that is likely to occur under different instructions, to find what relationship may exist between amount of guessing and performance in the area covered by the test, and to determine the effects of guessing on various statistics.

Torrance, E. Paul and Harmon, Judson A. "Effects of Memory, Evaluative, and Creative Reading Sets on Test Performance," *Journal of Educational Psychology*, 52 (August 1961) 207-14.

Reports results of assigning 115 college students to three groups, each of which was asked to read for one purpose during a week, another for a second, and a third for the last week, followed by testing.

Traxler, Arthur E. "Results of the Diagnostic Reading Tests for Grades 4, 5 and 6, Survey Section, among Independent School Pupils," *1952 Fall Testing Program in Independent Schools and Supplementary Studies*. Educational Records Bulletin, No. 60, 69-76. (New York: New York Educational Records Bureau, 1952.)

Factors Affecting Standardized Reading Test Validity and Reliability

Reports the results of studies concerning the validity of entering responses on separate answer sheets as contrasted with entering them in test booklets and presents evidence concerning the reliability of the tests and intercorrelations among parts of the test and with other reading tests.

Ware, Florence Edna. "Effect on Reading Achievement of Under-Testing Pupils in Low Third Grade," *California Journal of Educational Research*, 7 (January 1956) 22-24.

Presents a longitudinal study which reports steps taken and sample data secured to determine possible causes, particularly inadequate testing, of the low scores in vocabulary and comprehension among third-grade pupils in California.

Weaver, Wendell and Bickley, A. C. "Sources of Information for Responses of Reading Test Items," *APA 75th Annual Convention Proceedings*, 75 (1967) 293-94.

Analyzes performance on multiple-choice items on reading comprehension tests for 147 undergraduates divided into seven treatments varying the percentage of content and function words which were blacked out.

Weintraub, Samuel. "The Question as an Aid in Reading," *The Reading Teacher*, 22 (May 1969) 751, 753-55.

Reviews research dealing with the science of questioning under the headings: placement of questions, question type, and question frequency.

Westover, Frederick L. "A Comparison of Listening and Reading as a Means of Testing," *Journal of Educational Research*, 52 (September 1958) 23-26.

Summarizes the results of tests given to 198 college students to determine the effects of the factors of listening to questions and of reading questions on the students' performance on objective tests.

Section 3: Environmental Influences

Arnold, Richard D. "Reliability of Test Scores for the Young 'Bilingual' Disadvantaged," *The Reading Teacher*, 22 (January 1969) 341-45.

Reports the internal consistency of two reading tests and one intelligence test administered to approximately 200 Mexican-American children in grade 3.

Environmental Influences

Bauernfeind, Robert H. and Blumenfeld, Warren S. "A Comparison of Achievement Scores of Public-School and Catholic-School Pupils," *Educational and Psychological Measurement*, 23 (Summer 1963) 331-36.

Examines two studies which compare the achievement in language arts, arithmetic, and reading of public- and Catholic-school students who had completed grade 8.

Berke, Norman Daniel. *An Investigation of Adult Negro Illiteracy: Prediction of Reading Achievement and Description of Educational Characteristics of a Sample of City Core Adult Negro Illiterates.* 153 p. (Ed.D., State University of New York at Buffalo, 1967) *Dissertation Abstracts*, 28, No. 3, 931-A. Order No. 67-11,507, microfilm \$3.00, xerography \$7.20 from University Microfilms.

Analyzes data obtained from testing 42 adult Negro illiterates who completed a 200-hour program of instruction and makes recommendations for construction and administration of tests for adult illiterates.

Boykin, Leander L. "The Reading Performance of Some Negro College Students," *Journal of Negro Education*, 24 (Fall 1955) 435-41.

Reports the results of a statistical analysis of the scores made on the Reading Comprehension Test, C1, Form R, of the Cooperative English Test, given to 596 Negro college students to determine the general level of their reading ability, the areas of greatest weakness, sex differences, if any, and the extent of the variability of the group.

Brockman, Sister Mary Annata and Reeves, A.W. "Relationship Between Transiency and Test Achievement," *Alberta Journal of Educational Research*, 13 (December 1967) 319-30.

Investigates the relationship between transiency and test achievement (including reading, arithmetic, language, science, and spelling) for 1,341 sixth graders. Seven hundred were considered transient, 641 nontransient.

Buckley, Geoffrey John. *Reading Achievement in Grade Five and Its Relationship to Parental Occupation, Verbal Intelligence, and Certain Environmental Factors.* (Ed.D., The University of British Columbia, 1967) *Dissertation Abstracts*, 29, No. 3, 757-58-A. Microfilm copy available from the National Library of Canada at Ottawa.

Investigates the relationship of certain environmental factors, parental occupation, and verbal intelligence to reading achievement among fifth-grade children from high, middle, and low social class areas in Vancouver, British Columbia.

Carson, Arnold S. and Rabin, A.I. "Verbal Comprehension and Communication in

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Negro and White Children," *Journal of Educational Psychology*, 51 (April 1960) 47-51.

Compares verbal responses to two vocabulary tests by three matched groups of 30 children each from grades 4 to 6, including northern whites, northern Negroes, and southern Negroes.

Cooper, Bernice. "An Analysis of the Reading Achievement of White and Negro Pupils in Certain Public Schools of Georgia," *School Review*, 72 (Winter 1964) 462-71.

Secures data from test results on more than 30,000 students in grades 4 through 12 on a standardized reading measure to compare achievement in vocabulary and comprehension between white and Negro pupils in terms of their mean grade placements.

Davis, O.L., Jr. and Personke, Carl R., Jr. "Effects of Administering the Metropolitan Readiness Test in English and Spanish to Spanish-Speaking School Entrants," *Journal of Educational Measurement*, 5 (Fall 1968) 231-34.

Explores the possibility of bias in testing Spanish-speaking children in English by studying 88 Spanish-speaking children from two elementary schools, 53 enrolled in pre-first grade sections and 35 enrolled in regular sections.

Dukes, Ben Marshall. *Anxiety, Self Concept, Reading Achievement and Creative Thinking in Four Socio-Economic Status Levels*. 145 p. (Ed.D., University of Alabama, 1964) *Dissertation Abstracts*, 25, No. 12, Part I, 7076. Order No. 65-4950, microfilm \$2.75, xerography \$6.80 from University Microfilms.

Investigates the relationship of anxiety, self-concept, reading achievement, and creative thinking among fifth-grade boys and girls in four socioeconomic status levels.

Engemoen, Bonny Lynn. *The Influence of Membership in a Broken Home on Test Performance of First Grade Children*. 93 p. (Ed.D., North Texas State University, 1966) *Dissertation Abstracts*, 27, No. 9, 2726-A. Order No. 67-2574, microfilm \$3.00, xerography \$4.80 from University Microfilms.

Reveals that first-grade children from broken homes showed no difference in regard to such factors as reading achievement and intelligence from children from united homes except in teacher ratings of leadership behavior and aggressive maladjustment.

Feldmann, Shirley and Weiner, Max. "The Use of a Standardized Reading Achievement Test with Two Levels of Socio-Economic Status Pupils," *Journal of Experimental Education*, 32 (Spring 1964) 269-74.

Environmental Influences

Reports problems in attempts to correct for lack of heterogeneity when standardized test results yielded homogeneous scores and analyzes tests scores of 26 lower-class and 34 middle-class children on two standardized reading tests to determine the intercorrelations between both tests within and between socioeconomic groups.

Hill, Edwin H. and Giammatteo, Michael C. "Socio-Economic Status and Its Relationship to School Achievement in the Elementary School," *Elementary English*, 40 (March 1963) 265-70.

Uses 223 grade-3 pupils in nine classrooms and three schools to measure relationships between socioeconomic status, using an interview sheet and composite reading test, as well as subtest scores.

Kemp, Leslie C. D. "Environmental and Other Characteristics Determining Attainment in Primary Schools," *British Journal of Educational Psychology*, 25 (June 1955) 67-77.

Bases conclusions upon scores obtained for 42 variables, including environmental and personal factors, mental ability and school achievement, from sample groups of pupils in 50 mixed London junior schools.

Kumbaraci, Turkan E. *Translated Reading Tests as Culture-Fair Measures for Foreign Students*. 124 p. (CRP-S-177, OEC-5-10-108, Columbia University, New York, 1966) ED 010 258, microfiche \$0.50, hard copy \$6.30 from EDRS.

Compares an English language reading comprehension test with its Turkish translation and retranslation by administering the test to Turkish and American high school seniors and to college students.

Lovell, K. and Woolsey, M.E. "Reading Disability, Non-Verbal Reasoning and Social Class," *Educational Research*, 6 (June 1964) 226-29.

Secures data on nonverbal reasoning abilities of 184 third-year junior school children and 426 fourth-year secondary school children, all backward readers, and ascertains the percent of backwardness in reading according to social classes among 4,387 pupils in third and fourth years at English junior and secondary schools.

Mitchell, Blythe C. "Predictive Validity of the Metropolitan Readiness Tests and the Murphy-Durrell Reading Readiness Analysis for White and for Negro Pupils," *Educational and Psychological Measurement*, 27 (Winter 1967) 1,047-54.

Correlates the scores on the subtests and the totals of two reading readiness tests with the raw scores of the subtests on the Stanford Achievement Test for 7,310 white first graders and 518 Negro first graders.

Factors Affecting Standardized Reading Test Validity and Reliability

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

Compares fourth- and sixth-grade pupils in Weisbaden with those in Philadelphia and vicinity by having all students take the Gates Reading Survey, translated for the German students, and the Frankfurter Test, translated for the American students.

Sheldon, William D. and Carrillo, Lawrence. "Relation of Parents, Home, and Certain Developmental Characteristics to Children's Reading Ability," *Elementary School Journal*, 52 (January 1952) 262-70.

Bases conclusions on the scores of 844 pupils in eight schools who took the Progressive Reading Test and on information secured from 521 parent questionnaire forms concerning size of family, position of child among his siblings, number of books in the home, age at which child first spoke, etc.

Sheldon, William D. and Cutts, Warren C. "Relation of Parents, Home and Certain Developmental Characteristics to Children's Reading Ability, II," *Elementary School Journal*, 53 (May 1953) 517-21.

Summarizes the information supplied by parents of 868 pupils in response to a questionnaire concerning 10 characteristics of their children and compares findings with the status of the respective pupils in reading.

Trout, Len Lawrence, Jr. *An Analysis of Certain Social and Economic Factors in Relationship to Reading Test Scores Reported by Selected California School Districts*. 170 p. (Ed.D., University of the Pacific, 1968) *Dissertation Abstracts*, 29, No. 5, 1378-79-A. Order No. 68-14,983, microfilm \$3.00, xerography \$7.80 from University Microfilms.

Analyzes the extent and significance of the differences of certain social and economic factors in high- and low-achievement school districts among first-grade pupils in several schools.

Whitesides, Sheila. *Administering the POSR to Lower Class Children*. 5 p. (OEC-6-10-108, 1965) ED 011 608, microfiche \$0.25, hard copy \$0.35 from EDRS.

Concludes that reading questions in both English and Spanish given to students of Latin American descent can help at all grade levels and that Spanish-speaking persons can elicit more cooperation from such pupils.

Empirical Studies

Section 4: Empirical Studies

Alshan, Leonard M. "Reading Readiness and Reading Achievements," *Reading and Inquiry*, J.A. Figurel, Ed. International Reading Association Conference Proceedings, 10 (1965) 312-13.

Presents computation of factor analysis of the coefficients of intercorrelations among 28 measures of components of reading readiness and reading achievement obtained from data from various tests and teachers' ratings for 82 children who were tested in the middle and at the end of their first-grade year.

Anderson, Charles C. "A Factorial Analysis of Reading," *British Journal of Educational Psychology*, 19 (November 1949) 220-21.

Summarizes the results of a factorial analysis of reading (a thesis on file in Glasgow University) based upon scores of intelligence, vocabulary, two English tests, and two tests of interpretation given to secondary school pupils.

Anderson, Harry E., Jr. "The Prediction of Reading and Language from the California Tests," *Educational and Psychological Measurement*, 21 (Winter 1961) 1,035-36.

Correlates the subtest scores of the California Achievement Test and the California Test of Mental Maturity singly and multiply with school grades in reading and language for 112 fourth-grade pupils.

Attea, Mary. *A Comparison of Three Diagnostic Reading Tests*. 157 p. (Ed.D., State University of New York at Buffalo, 1966) *Dissertation Abstracts*, 27, No. 6, 1530-A. Order No. 66-13,082, microfilm \$3.00, xerography \$7.40 from University Microfilms.

Compares three diagnostic tests devised for elementary school children to determine their degree of relationship, their equivalence of grade levels, and the differences in variability among similarly labeled subtests.

Baker, Emily V. "Reading Readiness Is Still Important," *Elementary English*, 32 (January 1955) 17-23.

Reports a longitudinal analysis of reading achievement scores made by 216 middle-grade pupils reading below the norm for their grade and raises questions about primary grade testing instruments in relation to the long-term objectives of the reading program.

Barrett, Harry O. "The Predictive Efficiency of Grade 8 Objective Tests in Terms of Grade 9 Achievement," *Ontario Journal of Educational Research*, 2 (April 1960) 101-07.

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Presents and interprets the correlations of scores on reading and arithmetic tests with marks on Christmas examinations in four academic fields by 2,510 ninth-grade pupils to determine the predictive value of the objective tests used.

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) 1,057-62.

Investigates the relationship between word-analysis skill proficiency and reading comprehension for 1,402 fourth graders in 55 classrooms.

Benz, Donald A. and Rosemier, Robert A. "Word Analysis and Comprehension," *The Reading Teacher*, 21 (March 1968) 558-63.

Analyzes relationships between scores on six word-analysis measures and scores on a comprehension measure for 1,402 fourth-grade subjects.

Bernard, Jack. "Achievement Test Norms and Time of Year of Testing," *Psychology in the Schools*, 3 (July 1966) 273-75.

Investigates effects of time of year of testing on scores on standardized test batteries by comparing means obtained in September testing with means predicted from June scores by the published norms table for the battery.

Campbell, W., et al. "An Evaluation of the California Achievement Test, Elementary, Form W, Reading Comprehension," *Journal of Educational Research*, 58 (October 1964) 75-77.

Compares performances of 2,458 middle-grade students on a standardized reading comprehension test with the test's normative data.

Coates, Leslie F. "The Enigma of the Survey Section of the Diagnostic Reading Test," *Multi-Disciplinary Aspects of College-Adult Reading*, G.B. Schick and M.M. May, Eds. Yearbook of the National Reading Conference, 17 (1968) 70-78.

Compares mean scores of junior college students enrolled over a 2-year period in a developmental reading class on three forms of the Diagnostic Reading Test.

Crook, Frances E. "Interrelationships among a Group of Language Arts Tests," *Journal of Educational Research*, 51 (December 1957) 305-11.

Presents the intercorrelations among the scores made by 141 tenth-grade students on 15 language arts tests, including paragraph comprehension, directed reading, retention of details, and reading rate.

Empirical Studies

Davis, Frederick B. *Identification and Measurement of Reading Skills of High-School Students*. 84 p. (CRP 3023, OEC-6-10-024, Pennsylvania University, Philadelphia, 1967) ED 014 397, microfiche \$0.50, hard copy \$4.30 from EDRS.

Reports on a study described as the first application of cross-validated uniqueness analysis techniques and designed to eliminate the effects of imperfections in a prior factor-analytic study of reading comprehension which used tests especially constructed to measure mental skills in reading.

Davis, William Quinby. *A Study of Test Score Comparability among Five Widely Used Reading Survey Tests*. 112 p. (Ph.D., Southern Illinois University, 1968) *Dissertation Abstracts*, 29, No. 12, 4370-A. Order No. 69-6261, microfilm \$3.00, xerography \$5.60 from University Microfilms.

Develops equivalency tables equating reading grade level scores among five reading tests by testing 10 third-grade and nine fifth-grade classes.

Della-Piana, Gabriel and Martin, Helen. "Reading Achievement and Maternal Behavior," *The Reading Teacher*, 20 (December 1966) 225-30.

Compares behavior ratings on investigator-prepared instruments for mothers of 10 sixth-grade girls identified as underachievers in reading with mothers of 10 overachievers in two semistructured mother-daughter interaction situations.

Education Records Bureau. "A Note on the Correlation Between Forms A and B of the Diagnostic Reading Tests: Survey Section, with a Time Interval of Approximately One Year," *1949 Fall Testing Program in Independent Schools and Supplementary Studies*. Educational Records Bulletin No. 53, 67-68. (New York: New York Education Records Bureau, 1950.)

Bases conclusions on data from three groups of independent school pupils in grades 7, 9, and 11 when the first tests were given.

Eller, William and Attea, Mary. "Three Diagnostic Reading Tests - Some Comparisons," *Vistas in Reading*, J.A. Figurel, Ed. International Reading Association Conference Proceedings, 11 (1966) 62-66.

Compares the scores of 101 third graders on three diagnostic reading tests with results on a reading comprehension test to determine between-test and within-test discrepancies.

Endler, Norman S. and Steinberg, Danny. "Prediction of Academic Achievement at the University Level," *Personnel and Guidance Journal*, 41 (April 1963) 694-99.

Attempts to predict college grades for 69 college freshmen by using high school

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average grades; the mathematics, reading, and writing subtests of the Cooperative School and College Ability Tests and the Sequential Tests of Educational Progress; and sex differences.

Farr, Roger C. "The Convergent and Discriminant Validity of Several Upper Level Reading Tests," *Multi-Disciplinary Aspects of College-Adult Reading*, G.B. Schick and M.M. May, Eds. Yearbook the National Reading Conference, 17 (1968) 181-91.

Presents two multitrait-multimethod correlation matrices, each for three reading tests to study the construct validity of test batteries using scores made by 61 ninth-grade students and 91 college students.

Fisher, Joseph Anthony. *The Use of Out-of-Grade Tests with Retarded and Accelerated Readers*. 133 p. (Ph.D., State University of Iowa, 1961) *Dissertation Abstracts*, 22, No. 8, 2683. Order No. 61-5564, microfilm \$2.75, xerography \$6.40 from University Microfilms.

Compares in-grade and out-of-grade testing of the reading comprehension of accelerated and retarded readers with conventional grade placement tests.

Fortenberry, Warren D. and Broome, Billy J. "Comparison of the Gates Reading Survey and the Reading Section of the Wide Range Achievement Test," *Journal of Developmental Reading*, 7 (Autumn 1963) 66-68.

Secures data from 98 fourth graders to show the relationship between scores on two reading achievement tests.

Garlock, Jerry; Dollarhide, Robert S.; and Hopkins, Kenneth D. "Comparability of Scores on the Wide Range and the Gilmore Oral Reading Tests," *California Journal of Educational Research*, 16 (March 1965) 54-57.

Reports the correlation coefficients of two reading tests for 108 children in grades 1 through 12.

Goalsby, Thomas M., Jr. "Differentiating Between Measures of Different Outcomes in the Social Studies," *Journal of Educational Measurement*, 3 (Fall 1966) 219-22.

Investigates the nature of the interrelationships among three experimental tests measuring various social studies outcomes and four reading skills for 555 eighth graders in 10 school systems.

Halfter, Irma T. and Douglas, Frances M. "'Inadequate' College Readers," *Journal of Developmental Reading*, 1 (Summer 1958) 42-53.

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Compares the scores made by high-school graduates on a battery of entrance tests, including the Survey Section, Diagnostic Reading Test, Form D, with their subsequent grade point averages to identify the predictive value of the tests used.

Harootunian, Berj and Tate, Merle W. "The Relationship of Certain Selected Variables to Problem Solving Ability," *Journal of Educational Psychology*, 51 (December 1960) 326-33.

Reports the correlation coefficients between the performance of 513 seventh- and eighth-grade pupils on four problem-solving tests and their performance on a battery of tests measuring seven variables.

Hollenbeck, George P. "Predicting High School Biology Achievement with the Differential Aptitude Tests and the Davis Reading Test," *Educational and Psychological Measurement*, 27 (Summer 1967) 439-42.

Correlates scores in reading achievement and general ability with end-of-year biology achievement for three groups (N=32, N=288, N=107) of tenth graders using different biology curricula and then compares scores from alternate forms of the Davis Reading Test.

Holmes, Jack A. "Factors Underlying Major Reading Disabilities at the College Level," *Genetic Psychology Monographs*, 49 (February 1954) 3-95.

Presents an analysis of test data secured from over 200 students to check the two hypotheses that reading ability is a composite of speed and power of reading, each of which is a composite of related factors; and that disabilities in reading bear an inverse relationship to the quantitative levels of each of these components.

Hughes, Vergil H. "A Study of the Relationships among Selected Language Abilities," *Journal of Educational Research*, 47 (October 1953) 97-106.

Correlates scores made by 332 fifth-grade pupils on word meaning and comprehension tests with those made on tests of other aspects of the language arts.

Jackson, Robert. "A Comparison of Diagnostic Reading Tests with Certain Other Criteria," *Educational and Psychological Measurement*, 11 (Winter 1951) 603-04.

Reports correlations between part scores of the Diagnostic Reading Test; the Cooperative English Tests, Reading Comprehension, C2; and the American Council on Education Psychological Examinations. Also reports the correlations between scores on the two reading tests.

Johnson, Roger Erling. *A Study of the Validity of the Clymer-Barrett Prereading*

Factors Affecting Standardized Reading Test Validity and Reliability

Battery. 157 p. (Ph.D., University of Minnesota, 1967) *Dissertation Abstracts*, 28, No. 10, 3892-A. Order No. 68-1592, microfilm \$3.00, xerography \$7.40 from University Microfilms.

Gives the results of a study of the predictability of the Clymer-Barrett Prereading Battery and its subtests and their comparison to the Metropolitan Readiness Tests.

Johnson, Roger E. "The Validity of the Clymer-Barrett Pre-Reading Battery," *The Reading Teacher*, 22 (April 1969) 609-14.

Uses 816 first-grade children from 46 classrooms in determining the predictability of a reading readiness test for grade-1 reading achievement.

Keats, J.A., et al. "The Difficulty of Available Word Recognition Tests for Queensland Children." *The Australian Journal of Education*, 2 (November 1958) 168-70.

Reports the results of an evaluation of six vocabulary tests with respect to difficulty, using as a criterion of difficulty the number of pupils in a group of 600 approximately 9 years old who in a previous study had used a particular word appearing in any of the six tests.

Krantz, Lavern L. "An Aggression Analysis in Determining the Relative Contribution of Certain Components of Reading Ability in Grade and High School Achievement," *Journal of Experimental Education*, 23 (March 1955) 275-77.

Describes a statistical method for determining the relationship between reading and basic skills as measured in the seventh grade (the independent variables) and success in certain phases of the academic program at the high school level (the dependent variables).

Lawson, John R. and Avila, Donald. "Comparison of Wide Range Achievement Test and Gray Oral Reading Paragraphs Reading Scores of Mentally Retarded Adults," *Perceptual and Motor Skills*, 14 (June 1962) 474.

Reports the central tendency and correlation of the two tests given to 30 adults ages 16 to 45 with IQ's from 47 to 81.

Lennon, Roger T. "The Stability of Achievement Test Results from Grade to Grade," *Educational and Psychological Measurement*, 11 (Spring 1951) 121-27.

Presents a statistical analysis of achievement test data (including reading) from pupils of grades 2 to 8 inclusive in 81 communities to determine the consistency of results for successive school grades, using the Metropolitan Achievement Tests.

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Lennon, Roger T. "What Can Be Measured?" *The Reading Teacher*, 15 (March 1962) 326-37.

Presents a critical review of 15 reports of research dealing with testing and implications.

Linn, Robert L. "A Note on the Stability of the Iowa Tests of Basic Skills," *Journal of Educational Measurement*, 6 (Spring 1969) 29-31.

Presents intercorrelations of fifth- and eighth-grade performance on five subtests for 9,972 students from 64 school systems.

Lowell, Robert E. *Selected Reading Readiness Tests as Predictors of Success in Reading*. 36 p. (OEG-1-7-068894-0323, 1967) ED 015 118, microfiche \$0.25, hard copy \$1.90 from EDRS.

Tests four null hypotheses to evaluate selected reading readiness tests as predictors of first-grade reading achievement.

Lundsteen, Sara W. and Michael, William B. "Validation of Three Tests of Cognitive Style in Verbalization for the Third and Sixth Grades," *Educational and Psychological Measurement*, 26 (n.m. 1966) 449-61.

Investigates the degree and pattern of interrelationships among three experimental measures purporting to measure three qualitative levels of verbal functioning, a test of critical listening, a standardized reading test, and a standardized test of verbal ability, which were administered to 178 third and sixth graders.

MacArthur, R.S. and Mosychuk, H. "Lower and Upper Socio-Economic Group Contrasts in Long-Term Predictability of Grade Nine Achievement," *Journal of Educational Measurement*, 3 (Summer 1966) 167-68.

Compares predictive validity for grade-9 achievement of selected intelligence and achievement measures administered in grades 3, 6, and 7 to 237 pupils from differing socioeconomic strata.

Manuel, Herschel T. *Tests of General Ability and Reading, Inter-American Series*. 636 p. (CRP-681, Texas University, Austin, 1963) ED 003 857, microfiche \$2.75, hard copy \$31.80 from EDRS.

Describes the revising and addition of testing materials in both Spanish and English language editions.

McCall, Rozanne A. and McCall, Robert B. "Comparative Validity of Five Reading Diagnostic Tests," *Journal of Educational Research*, 62 (March 1969) 329-33.

Factors Affecting Standardized Reading Test Validity and Reliability

Assesses the interrelationships and comparative validity of five tests administered to 27 fourth-grade children using teacher ratings, standardized test scores, and grades as criteria.

McCall, Rozanne A. and McCall, Robert B. "A Comparison of First Grade Reading Tests," *Illinois School Research*, 2 (October 1965) 32-37.

Reports data on the predictive validities of an IQ and a readiness test which were administered to two groups totaling 424 first-grade children using the criterion of either one of two reading achievement tests.

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*, J. Allen Figurel, Ed. International Reading Association Conference Proceedings, 9 (1964) 310-13.

Describes validity and reliability procedures in the development of an individual reading test for measuring a child's frustration, instructional, and independent reading levels.

McCracken, Robert Allen. *The Development and Validation of the Standard Reading Inventory for the Individual Appraisal of Reading Performance in Grades 1 Through 6*. 141 p. (Ph.D., Syracuse University, 1963) *Dissertation Abstracts*, 24, No. 12, 5200. Order No. 64-5659, microfilm \$2.75, xerography \$6.80 from University Microfilms.

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Michealis, John U. and Tyler, Fred T. "A Comparison of Reading Ability and Readability," *Journal of Educational Psychology*, 42 (December 1951) 491-98.

Compares the readability of United Nations publications, according to each of three formulas, with the reading ability of 78 grade-12 students, as determined by the Iowa Silent Reading Test, and the accuracy with which these students answered questions based on the United Nations materials.

Mitchell, Ronald Warren. *A Comparison of Children's Responses to an Original and Experimental Form of Subtests GS and ND of the Gates Basic Reading Tests*. 161 p. (Ph.D., University of Minnesota, 1967) *Dissertation Abstracts*, 28, No. 3, 970-A. Order No. 67-10,432, microfilm \$3.00, xerography \$7.60 from University Microfilms.

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Reveals that a high percentage of items on the Gates Basic Reading Test, subtests GS and ND, can be answered even though the corresponding reading passages are omitted.

Moreau, Margaret. "Long Term Prediction of Reading Success," *California Journal of Educational Research*, 1 (September 1950) 173-76.

Compares the reading achievement, as measured by the California Basic Skills Test, of 275 pupils in the low sixth grade with their scores on the Lee-Clark Reading Readiness Test and the Pintner-Cunningham Primary Test of Mental Ability given during the first month of their first grade.

Mullins, Cecil J. "The Effect of Reading Ability on Two Standardized Classification Tests," *Journal of Educational Psychology*, 46 (March 1955) 189-92.

Reports correlations between the scores made by 400 students on a test of reading ability and two widely used classification tests—the American Council on Education (Q-score only) and the Cooperative Mechanics of Expression, Form A.

Murray, Carol Faith and Karlson, Bjorn. "A Concurrent Validity Study of the Silent Reading Tests and the Gates Reading Diagnostic Tests," *The Reading Teacher*, 13 (April 1960) 293-94, 296.

Compares the means and standard deviations of the scores made by 20 children with reading disabilities on two tests which purport to measure the same skills to determine if they yield equivalent distributions of scores.

Namkin, Sidney. *The Stability of Achievement Test Scores: A Longitudinal Study of the Reading and Arithmetic Subtests of the Stanford Achievement Test.* 222 p. (Ed.D., Rutgers-The State University, 1966) *Dissertation Abstracts*, 27, No. 2, 398-A. Order No. 66-6913, microfilm \$3.00, xerography \$10.15 from University Microfilms.

Investigates pupil growth in reading and arithmetic skills from grades 2 through 8 to determine the stability of these patterns and to compare patterns with those obtained from longitudinal studies of intelligence.

North, Robert D. "A Comparison of the Cooperative School and College Ability Tests; the College Ability Test; and the American Council Psychological Examination: Reliabilities, Intercorrelations, and Correlations with the Diagnostic Reading Tests," *1955 Fall Testing Program in Independent Schools and Supplementary Studies.* Educational Records Bulletin, No. 67, 65-72. (New York: New York Educational Records Bureau, February 1956.)

Factors Affecting Standardized Reading Test Validity and Reliability

Bases conclusions on test results from six independent schools in which 184 tenth-grade and 153 twelfth-grade pupils took the three tests involved in the study.

North, Robert D. "Difficulty and Reliability of the Gates Primary and Advanced Primary Reading Tests, 1958 Edition, for Independent School Pupils," *1959 Fall Testing Program in Independent Schools and Supplementary Studies*, Educational Records Bulletin No. 76, 45-51. (New York: New York Educational Records Bureau, 1960.)

Bases conclusions on test records secured from 369 second- and 329 third-grade pupils in 17 schools.

North, Robert D. "An Evaluation of the STEP Listening Test for the Independent School Testing Program," *1958 Achievement Testing Program in Independent Schools and Supplementary Studies*. Educational Records Bulletin, No. 72, 61-67. (New York: New York Educational Records Bureau, July 1958.)

Reports correlations of scores in the STEP Listening Test, Form G, with the time of the reading sections of the Cooperative English Test, Form Y, and the Stanford Achievement Test, Form J, given to pupils in grades 5, 8, and 11.

Ohnmacht, Fred W. "Achievement, Anxiety and Creative Thinking," *American Educational Research Journal*, 3 (March 1966) 131-38.

Reports the intercorrelations of different variables of intelligence, academic achievement, creative thinking, and manifest anxiety as measured by a battery of tests administered to 204 fifth- and sixth-grade pupils.

Olson, Arthur V. "Relation of Achievement Test Scores and Specific Reading Abilities to the Frostig Developmental Test of Visual Perception," *Perceptual and Motor Skills*, 22 (February 1966) 179-84.

Reports the correlations between the scores of 71 second-grade children on the Frostig Test of Visual Perception and a battery of tests measuring intelligence, achievement, and specific reading abilities.

Olson, Arthur V. and Fitzgibbon, Norinne H. "Factor Analytic Investigation of Two Reading Readiness Tests," *Perceptual and Motor Skills*, 27 (October 1968) 611-14.

Applies factor analysis to the subtest scores of two reading readiness tests administered to 294 beginning first-grade pupils in order to determine the factors being measured by the tests.

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Raygor, Alton. "Problems in the Substrata-Factor Theory," *Reading Research Quarterly*, 1 (Spring 1966) 147-50.

Presents a simplified explanation of certain statistical procedures in the substrata-factor analysis of reading and critically examines some assumptions concerning substrata-factor analysis.

Richardson, J. "A Factorial Analysis of Reading Ability in 10-Year-Old Primary School Children," *British Journal of Educational Psychology*, 20 (November 1950) 200-01.

Summarizes briefly the results of a factorial analysis based on the responses of 260 children to a battery of 21 tests (reading, language, visual and auditory discrimination) and assessments of experimental background and of attitude to reading.

Riley, Conal Stuart. "The Relationship Between Reading Ability and Verbal Intelligence Test Performance," *British Journal of Educational Psychology*, 36 (February 1966) 117.

Investigates the relationship between the performance on a reading test and the performance on a written intelligence test and an individual intelligence scale administered to 38 children ages 8 to 9.

Robinson, H. Alan and Hanson, Earl. "Reliability of Measures of Reading Achievement," *The Reading Teacher*, 21 (January 1968) 507-13, 323.

Ascertain the reliability of nine instruments measuring factors related to success in beginning reading using 297 first, second, and third graders from three socioeconomic levels.

Schreiner, Robert Lee. *A Study of Interrelationships among Different Approaches to Measuring Reading Comprehension*. 184 p. (Ph.D., The University of Iowa, 1969) *Dissertation Abstracts*, 29, No. 11, 3882-A. Order No. 69-8803, microfilm \$3.00, xerography \$8.40 from University Microfilms.

Tests 513 fifth graders in an attempt to determine whether unique aspects of reading comprehension are being measured by different types of reading subtests.

Sheppard, Charles and Campbell, William J. "An Evaluation of the California Achievement Test, Elementary, Form W, Reading Vocabulary," *Journal of Educational Research*, 56 (May and June 1963) 481-83.

Compares the performance of 1,070 fourth-grade students, 964 fifth-grade students, and 872 members of the sixth grade of Hicksville, New York, on the

Factors Affecting Standardized Reading Test Validity and Reliability

Vocabulary Section of the California Achievement Test with the performance of the normative group to determine the effectiveness of the test for the particular school district.

Stanley, Julian C., Jr. "On the Adequacy of Standardized Tests, Administered to Extreme Norm Groups," *Peabody Journal of Education*, 29 (November 1951) 145-52.

Questions the advisability of using a test over a wider range of grades than those for which it was standardized as a result of an analysis of data secured through giving the Nelson-Denny Reading Test to a ninth-grade class.

Sutherland, Samuel Philip. *A Factor Analytic Study of Tests Designed to Measure Reading Ability*. 144 p. (Ph.D., University of Southern California, 1966) *Dissertation Abstracts*, 27, No. 12, 4141-A. Order No. 66-10,551, microfilm \$3.00, xerography \$6.80 from University Microfilms.

Studies the factorial nature of five survey reading tests by administering them to 250 fifth graders.

Sutton, Rachel S. "A Study of Certain Factors with Reading Readiness in the Kindergarten," *Journal of Educational Research*, 48 (March 1955) 531-38.

Reports 246 Pearson product-moment correlations between reading readiness, as measured by the Metropolitan Readiness Tests given to 150 kindergarten children, and various environmental conditions, personality traits, and teacher ratings of pupils' adjustment.

Tilton, J.W. "The Intercorrelations Between Measures of School Learning," *Journal of Psychology*, 35, Second Half (April 1953) 169-79.

Presents intercorrelations between the scores made by fourth-grade pupils on the various sections of the unit scales of attainment and between two testings on different forms at intervals of 20 months.

Toussaint, Isabella Hastie. *Interrelationships of Reading, Listening, Arithmetic and Intelligence and Their Implications*. 105 p. (Ph.D., University of Pittsburgh, 1961) *Dissertation Abstracts*, 22, No. 3, 819. Order No. 66-3289, microfilm \$2.75, xerography \$5.40 from University Microfilms.

Determines from tests given to pupils in grades 4, 5, and 6 that estimating an intermediate pupil's reading potential from a combination of selected measures of listening comprehension, arithmetic computation, and intelligence is more accurate than from any one test alone.

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Townsend, Agatha. "Growth of Independent-School Pupils in Achievement on the Stanford Achievement Test," *1950 Fall Testing Program in Independent Schools and Supplementary Studies*. Educational Records Bulletin No. 56, 61-71. (New York: New York Educational Records Bureau, 1951.)

Presents an analysis of the scores of 56 independent school pupils on the Stanford Test at five successive half-year periods during grades 5, 6, and 7 to determine the nature and consistency of their growth in reading and other subjects.

Traxler, Arthur E. "Intercorrelations and Validity of Scores on Three Reading Tests," *1950 Fall Testing Program in Independent Schools and Supplementary Studies*. Educational Records Bulletin No. 56, 79-89. (New York: New York Educational Records Bureau, 1951.)

Presents intercorrelations and validity of the scores on the Co-operative Reading Comprehension Test, the Iowa Silent Reading Test, and the Survey Section of the Diagnostic Reading Tests for pupils in grades 9 through 12 in an independent school for boys.

Traxler, Arthur E. "A Note on the Variability of the Independent School Population and on the Correlation of Test Scores for This Population as Compared with That for Public Schools," *1956 Achievement Testing Program in Independent Schools and Supplementary Studies*. Educational Records Bulletin, No. 68, 69-75. (New York: New York Educational Records Bureau, July 1956.)

Compares the medians and interquartile ranges on the scores of pupils in two independent schools on several tests as compared with those of pupils in two public schools and also compares the reliability coefficients for given reading tests as reported by Educational Records Bulletin for independent school pupils as compared with those reported in publishers' manuals.

Traxler, Arthur E. "Reading Growth of Secondary-School Pupils During a Five-Year Period," *1950 Achievement Testing Program in Independent Schools and Supplementary Studies*. Educational Records Bulletin, No. 54, 96-107. (New York: New York Educational Records Bureau, 1950.)

Bases conclusions upon the progress of 36 pupils in four schools who were in the seventh grade in 1944 and who took various forms of the Cooperative English Test C, Reading Comprehension, each year until 1949.

Traxler, Arthur E. "Some Independent School Results on the Cooperative School and College Ability Tests, Levels 2-5," *1959 Fall Testing Program in Independent Schools and Supplementary Studies*. Educational Records Bulletin, No. 76, 57-64. (New York: New York Educational Records Bureau, 1960.)

Factors Affecting Standardized Reading Test Validity and Reliability

Presents correlations of scores on the Schools Ability Test with comprehension on three reading tests for several small groups of independent school pupils.

Traxler, Arthur E. "Trends in Achievement of Independent Secondary-School Pupils During a Ten-Year Period," *1951 Achievement Testing Program in Independent Schools and Supplementary Studies*. Educational Records Bulletin, No. 57, 67-78. (New York: New York Educational Records Bureau, July 1951.)

Presents median and quartiles of scaled scores made by independent school pupils in grades 7 through 12 on Cooperative English Tests, Test C, Reading Comprehension, in each spring testing program from 1941 to 1951.

Traxler, Arthur E. and Townsend, Agatha. "Relationship of Differences Between Verbal and Numerical Aptitude to Differences in Achievement in English and Mathematics," *1953 Achievement Testing Program in Independent Schools and Supplementary Studies*. Educational Records Bulletin No. 61, 61-65. (New York: New York Educational Records Bureau, July 1953.)

Presents correlations between the scores of junior high school pupils in several independent schools on the Junior Scholastic Aptitude Test and tests of reading achievement, language usage, arithmetic, and mathematics.

Trela, Thaddeus M. "Comparing Achievement on Tests of General and Critical Reading," *Journal of the Reading Specialist*, 6 (May 1967) 140-42.

Compares the achievement of 318 ninth graders on tests of general reading ability and critical reading ability to ascertain the different factors which they measure.

Triggs, Frances Oralind. "A Comparison of Auditory and Silent Presentations of Reading Comprehension Tests," *Yearbook of National Council on Measurements Used in Education*, 14, 1-7. (Princeton, N.J.: Educational Testing Service, 1957.)

Presents intercorrelations of the scores of seventh- and eighth-grade pupils on two forms of the Diagnostic Reading Tests, one form read silently and the other to the students; and the relationship between scores on word attack and comprehension sections of the tests when presented in the two ways.

Vernon, Philip E. "The Determinants of Reading Comprehension," *Educational and Psychological Measurement*, 22 (Winter 1962) 269-86.

Presents a correlational and factor analysis study of selected reading tests considering content (level of integration, function, and technical bias), method (type of presentation and response, level of difficulty, etc.), and error components among 108 British and 75 American college students.

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Wallace, W.L. "The Prediction of Grades in Specific College Courses," *Journal of Educational Research*, 44 (April 1951) 587-97.

Presents data showing the value of various tests, including reading, used in the University of Michigan freshman testing program for predicting course grades and grade averages during the freshman year.

Webb, Sam C. and McCall, John N. "Predictors of Freshman Grades in a Southern University," *Educational and Psychological Measurement*, 13 (Winter 1953) 660-63.

Presents data concerning the relative validity of several aptitude and achievement tests, including the Cooperative English Tests, and high school averages for predicting first-year grades in college.

Webb, Wilse B. and Wallon, Edward J. "Comprehension by Reading Versus Hearing," *Journal of Applied Psychology*, 40 (August 1956) 237-40.

Summarizes the data secured in comparative studies using males between 18 and 25 years of age as subjects to determine comprehension of comparable materials when read silently, when presented from recordings, and when read and heard at the same time.

Wheeler, Lester R. and Wheeler, Viola D. "The Relationship Between Music Reading and Language Reading Abilities," *Journal of Educational Research*, 45 (February 1952) 439-50.

Reviews previous studies relating to the reading of music; compares the achievement of 243 fifth- and sixth-grade pupils in music, as measured by the Knuth Achievement Test in Music; and in reading, as measured by the Progressive Reading Test.

Part II

Validity and Reliability Problems of Reading Subskill and Subarea Measurement

Part II includes studies which have examined the validity and reliability problems of measuring reading subskills and subareas such as vocabulary, comprehension rate, and study skills. The investigations are concerned with the extent to which these skills can be measured as well as with the problems involved in valid and reliable assessment.

Section 1: Vocabulary

Aldrich, Ruth and Reilly, Marion Stewart. "Student Vocabulary Score -- Student Magazine Reading," *College English*, 16 (March 1955) 368-70.

Reports the findings of a study of the relation of vocabulary scores made by 847 college freshmen to their magazine reading habits.

Ames, Wilbur S. "The Understanding Vocabulary of First-Grade Pupils," *Elementary English*, 41 (January 1964) 64-68.

Gives a description of the construction and analysis of a test to measure the basic listening vocabulary of first-grade pupils.

Angeloni, Anthony Alfred. *The Multiple-Meaning Synonym Vocabulary Test for Children of Elementary School Age*. 89 p. (Ed.D., Pennsylvania State University, 1961) *Dissertation Abstracts*, 22, No. 1, 148. L.C. Card No. Mic. 61-2347, microfilm \$2.75, xerography \$4.60 from University Microfilms.

Evaluates the effectiveness of a multiple meaning vocabulary test as opposed to the more conventional single word answer test.

Arena, Thomas. *The Measurement of Recognition Vocabulary in Grades Four Through Six*. 167 p. (Ph.D., Ohio University, 1968) *Dissertation Abstracts*, 29, No. 9, 2876-A. Order No. 69-5085, microfilm \$3.00, xerography \$7.80 from University Microfilms.

Reports the constructing of and administering of a multiple-choice vocabulary test to 7,871 elementary students in Ohio to determine the over-all size of the total recognition vocabulary of children in intermediate grades and to identify any differences that might exist among females and males from grade to grade.

Bolton, Euri Belle. "The Predictive Value of the Columbia and the Michigan Vocabulary Tests for Academic Achievement," *Peabody Journal of Education*, 32 (July 1954) 9-21.

Presents conclusions concerning the predictive value of the scores made by women freshmen of the Michigan Vocabulary Profile Test, the Columbia Vocabulary Test,

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the American Council Psychological Examination, and the American Council on Education Cooperative English Test by comparing them with the number of quality points earned in all courses during the freshman year.

Bryan, Fred. E. "How Large Are Children's Vocabularies?" *Elementary School Journal*, 54 (December 1953) 210-16.

Reports conclusions based on use in grades 2 through 5 of a test booklet containing three separate tests: a free association test, a stimulus response test, and the Multi-Choice English Recognition Vocabulary Test by Seashore and Eckerson.

Callaway, Byron. "Clinical Evaluation to Determine the Needs of Children," *Vistas in Reading*. International Reading Association Conference Proceedings, 11, Part 1 (1966) 559-62.

Explains that IQ, family background, physical and emotional factors, and test scores aid in understanding the child and in helping him overcome difficulties.

Carrigan, Mary D. "Children's Knowledge of Words in Readers," *Studies in Reading*, 1, 135. Publications of the Scottish Council on Research in Education, 26. (Warwick Square, London: University of London Press, Ltd., 1948.)

Reports the results of a vocabulary test of 96 words given to 53 boys and 47 girls, age 5+, in eight Glasgow schools to determine the extent to which they understood the words in the infant readers used in their schools.

Chase, Clinton I. "An Application of Levels of Concept Formation to Measurement of Vocabulary," *Journal of Educational Research*, 55 (October 1961) 75-78.

Reports an experiment with 141 sixth-grade pupils using 16 arithmetic terms and responses at three levels: concrete, functional, and conceptuals as related to standardized test scores of arithmetic concepts.

Christenson, A. Adolph. *A Diagnostic Study of Oral Reading Errors of Intermediate Grade Children at Their Independent, Instructional, and Frustration Reading Levels (Research Study Number 1)*. 145 p. (Ed.D., Colorado State College, 1966) *Dissertation Abstracts*, 27, No. 8, 2270-A. Order No. 67-1103, microfilm \$3.00, xerography \$6.80 from University Microfilms.

Administers an informal reading inventory to intermediate-grade students to determine the independent, instructional, and frustration reading level for each student.

Cohn, Stella M. "Identifying and Diagnosing the Retarded Reader," *Improvement*

Validity and Reliability Problems of Reading Subskill and Subarea Measurement

of Reading Through Classroom Practice. International Reading Association Conference Proceedings, 9 (1964) 144-45.

Discusses the physical, intellectual, personality, environmental and educational aspects of the diagnostic procedure.

Cromer, Ward and Wiener, Morton. "Idiosyncratic Response Patterns among Good and Poor Readers," *Journal of Consulting Psychology*, 30 (February 1966) 1-10.

Compares performance on story reading and cloze tasks (of differing time, place, person, and affective content) and on word-association and figural-discrimination tasks for a group of 24 fifth graders scoring 2 years below age-grade expectancy on a reading achievement measure versus a matched group scoring at grade level.

Dolch, E. W. and Leeds, Don. "Vocabulary Tests and Depth of Meaning," *Journal of Educational Research*, 47 (November 1953) 181-89.

Presents evidence showing that many words have several meanings and that individuals vary in their knowledge of them, maintaining that future tests should show how much the testee knows about the various meanings of words.

Dunsdon, M. I. and Roberts, J. A. Fraser. "A Study of the Performance of 2,000 Children on Four Vocabulary Tests: I. Growth Curves and Sex Differences," *British Journal of Statistical Psychology*, 8 (May 1955) 3-15.

Analyzes test data to determine the extent to which the number of words correctly defined differed from the expected number for the respective age groups, the fact being recognized that variability increases with advancing age.

Dunsdon, M. I. and Roberts, J. A. Fraser. "A Study of the Performance of 2,000 Children on Four Vocabulary Tests," *British Journal of Statistical Psychology*, 10 (May 1957) 1-16.

Presents an analysis of the scores made by a 3 percent sample of the school children from 5.0 to 14.11 years of age in the city and county of Bristol, England, including both private and public schools, on the following vocabulary tests: Terman-Merrill, Form LS; Mill Hill Vocabulary, A and BS; and that from the Wechsler Intelligence Scale for Children.

Feifel, Herman and Lorge, Irving. "Qualitative Differences in the Vocabulary Responses of Children," *Journal of Educational Psychology*, 41 (January 1950) 1-18.

Presents the results of a qualitative analysis of the verbatim responses of 900 children between the ages of 6 and 14 to Form L, Stanford Binet Vocabulary Test.

Vocabulary

Figurel, J. Allen. "The Vocabulary of Underprivileged Children," *University of Pittsburgh Bulletin*, 45 (June 5, 1949) 1-10.

Analyzes the words recorded in a free-association test by children in grades 2 through 6 in the slum areas of two cities to determine the size, source, nature, and limitations of the vocabulary of underprivileged children.

Flesch, Rudolph. "Measuring the Level of Abstraction," *Journal of Applied Psychology*, 34 (December 1950) 384-90.

Presents and interprets correlations between the percentage of definite words in test passages, as a measure of abstraction, and the grade level of children who answered one-half of the test questions correctly.

Goodman, Kenneth S. "A Linguistic Study of Cues and Miscues in Reading," *Elementary English*, 42 (October 1965) 639-43.

Studies the effects of context on recognition and the causes of repetitions in oral reading by counting and comparing reading errors made by 100 children in grades 1 to 3 who first read orally a list of words taken from a story comparable to each of their reading levels and who then read the story itself later.

Hall, John F. "Retroactive Inhibition in Meaningful Material," *Journal of Educational Psychology*, 46 (January 1955) 47-52.

Reports the results of a controlled experiment involving 45 college students to test the operation of retroactive inhibition with meaningful material employing two degrees of similarity between the original and interpolated material.

Heim, A. W. and Watts, K. P. "An Experiment on Multiple-Choice Versus Open-Ended Answering in a Vocabulary Test," *British Journal of Educational Psychology*, 37 (November 1967) 339-46.

Compares answers to multiple-choice and open-ended type questions on a vocabulary test given to 100 sailors whose mean age was 20.75 years.

Kirkman, A. J. "Command of Vocabulary among University Entrants," *Educational Research*, 9 (February 1967) 151-59.

Describes the creation of a 72-word general vocabulary test which was given to approximately 2,000 first-year undergraduates from seven universities and colleges and discusses the results.

Kruglov, Lorraine P. "Qualitative Differences in the Vocabulary Choices of

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Children as Revealed in a Multiple-Choice Test," *Journal of Educational Psychology*, 44 (April 1953) 229-43.

Compares the results of a 10-item multiple-choice vocabulary test in which three or four choices were correct but of different quantitative levels when given to pupils at the third-, fifth-, seventh- and eighth-grade levels and to a group of college graduates.

Lepley, William M. "The Synonym Vocabulary Tests: Forms I and III Compared," *Journal of Psychology*, 67 (June 1967) 83-84.

Compares the performance of two groups – a heterogeneous population of 405 undergraduates and 106 graduate students – on two forms of a vocabulary test.

Lepley, William M. and Zeigler, Martin L. "The Synonym Vocabulary Tests: Standardization and Validation," *Journal of Psychology*, 41 (April 1956) 419-25.

Reviews briefly the structure of the test, describes the steps taken in its standardization through the use of data from 2,679 college freshmen, and presents evidence of its validity.

Osenburg, Frederic C. "A 'Qualitative' Vocabulary Test," *College English*, 18 (November 1956) 90-94.

Describes the distinctive character of the test, the methods used in scoring test items, and the methods used in analyzing the scores made by testees.

Potts, Marion. "A Comparison of Vocabulary Introduced in Several First-Grade Readers to That of Two Primary Reading Tests," *Journal of Educational Research*, 61 (February 1968) 285.

Analyzes the first-grade vocabulary of three basal readers to determine the percentage of words found that appear in two major reading achievement tests.

Ristow, William L. "How Accurate Are Students' Vocabularies?" *Education Digest*, 30 (1965) 49-51; *Chicago Schools Journal*, 46 (January 1965) 164-68.

Reports the growth in vocabulary and analyzes the errors of 623 college students on a definition-type vocabulary test administered at the beginning and at the end of a speech fundamentals course.

Roy, Sister Marie Collette. *Multiple-Meaning Oral Vocabulary of Good and Poor Readers*. 117 p. (Ph.D., University of Minnesota, 1964) *Dissertation Abstracts*, 26, No. 2, 910-11. Order No. 65-7813, microfilm \$3.00, xerography \$5.80 from University Microfilms.

Vocabulary

Studies the oral vocabulary skills of pupils of comparable intelligence and disparate reading achievement.

Russell, David H. "The Dimensions of Children's Meaning Vocabularies in Grades Four Through Twelve," *University of California Publications in Education*, 11, No. 5, 315-414. (Berkeley and Los Angeles, California: University of California Press, 1954.)

Reviews related studies and presents the results of seven vocabulary tests which aimed to determine the dimensions of the child's vocabulary, with some measure of breadth and depth, and the child's knowledge of words and concepts in different subject-matter areas.

Russell, David H. and Saadeh, Ibrahim Q. "Qualitative Levels in Children's Vocabularies," *Journal of Educational Psychology*, 53 (August 1962) 170-74.

Reports results of administering an experimental qualitative vocabulary test, calling for functional, concrete, or abstract correct definitions, given to 257 pupils in grades 3, 6, and 9 to determine whether significant changes in level of response occurred at the different grades.

Schubert, Delwyn G. "A Comparative Study of the Hearing and Reading Vocabularies of Retarded College Readers," *Journal of Educational Research*, 46 (March 1953) 555-58.

Compares the reading vocabulary, as measured by the Iowa Silent Reading Test, and the hearing vocabulary, as measured by the Vocabulary Section of Form B.B of the California Reading Test, of 26 retarded readers in the reading clinic of Los Angeles State College.

Shibles, Burleigh H. "How Many Words Does a First-Grade Child Know?" *Elementary English*, 36 (January 1959) 42-47.

Reviews the finding of previous studies and reports the results of the Seashore-Eckerson English Recognition Vocabulary Test given to 183 bilingual and monolingual pupils in seven elementary schools in Maine.

Spearman, Leonard Hall O'Connell. *A Profile Analysis Technique for Diagnosing Reading Disability*. 103 p. (Ph.D., University of Michigan, 1960) *Dissertation Abstracts*, 21, No. 8, 2198-99. L.C. Card No. Mic. 60-6941, microfilm \$2.75, xerography \$5.20 from University Microfilms.

Relates the development of a diagnostic procedure called profile analysis for use in clinical work with retarded readers in order to group these pupils by syndromes.

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Traxler, Arthur E. "Sex Differences in the Vocabulary of General and Specific Fields in Grades VII to X," *Growing Points in Educational Research*. Official Report of the American Educational Research Association, 146-51. (Washington: American Educational Research Association, 1949.)

Presents the results of 96 comparisons between the mean scores of boys and girls in grades 7 through 10 on the Vocabulary Section of the Diagnostic Reading Test, the words of the special fields having been selected from Cole's Teachers Handbook of Technical Vocabulary.

Weber, Rose-Marie. "The Study of Oral Reading Errors: A Survey of the Literature," *Reading Research Quarterly*, 4 (Fall 1968) 96-119.

Cites 54 sources concerning oral reading under the headings of the relation between oral and silent reading, classification systems, variables related to the systems, variables related to the commission of errors, and errors as indications of reading strategy.

Section 2: Comprehension

Aloia, Alex D. and Salinda, Juan F. "A Correlation Study Between Grades in English and Cooperative English Test Scores of College Freshmen," *California Journal of Educational Research*, 11 (January 1960) 7-13, 47.

Reports the results of a study of the correlation, if any, between English-11 grades and scores on the Cooperative English Test (Higher Level, Form Z) to determine the predictive value of the latter.

Alshan, Leonard M. *A Factor Analytic Study of Items in the Measurement of Some Fundamental Factors of Reading Comprehension*. 65 p. (Ed.D., Columbia University, 1964) *Dissertation Abstracts*, 25, No. 9, 5101. Order No. 65-4756, microfilm \$2.75, xerography \$3.60 from University Microfilms.

Makes a factor analysis of the Davis Reading Test, Form 2A, to determine if the test items define a number of distinct factors of reading ability and if those items written to measure one specific skill consistently had loadings on the same factor.

Atwater, Joan. "Toward Meaningful Measurement," *Journal of Reading*, 11 (March 1968) 429-34.

Examines 11 college level reading workbooks to ascertain the definition of reading comprehension used by the author of each and the aspects of comprehension which were tested in the workbooks.

Barrett, Dorothy M. "Correlation of Survey Section of Diagnostic Reading Tests

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and of Test C2: Reading Comprehension with College History Grades," *Journal of Educational Research*, 46 (February 1953) 465-69.

Compares the coefficients of correlation between the scores made by 200 college freshmen on the Survey Section of the Diagnostic Reading Test C2, Reading Comprehension, and an index of achievement in history derived from grades made during two terms in a history course taken by all freshmen.

Bloomer, Richard H. and Heitzman, Andrew J. "Pre-Testing and the Efficiency of Paragraph Reading," *Journal of Reading*, 8 (March 1965) 219-23.

Deals with the relationship between pretest experiences and subsequent reading comprehension by examining four groups of eighth-grade students according to pretest and non-pretest situations and according to reading cloze materials and non-cloze materials.

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

Reports the construction of a 50-item cloze test and a 31-item multiple-choice test for each of nine 275-word passages, the administration of the tests to 100 fourth- and fifth-grade pupils, and the calculation of comparable cloze and multiple-choice scores.

Bormuth, John R. "Factor Validity of Cloze Tests as Measures of Reading Comprehension Ability," *Reading Research Quarterly*, 4 (Spring 1969) 358-65.

Analyzes the principal components of the correlations among nine cloze tests and seven multiple-choice comprehension tests, each designed to measure a different comprehension skill by administering the tests to 150 pupils enrolled in grades 4, 5, and 6.

Buswell, Guy T., with the cooperation of Kersh, Bert Y. "Patterns of Thinking in Solving Problems," *University of California Publications in Education*, 12, No. 2, 63-148. (Berkeley, California: University of California Press, 1956.)

Analyzes test data from 209 high-school students and 290 college students, as part of a broader study of patterns of problem solving thinking, to secure a clearer understanding of the way in which the reading of arithmetic problems is approached.

Christensen, C. M. and Stordahl, K. E. "The Effect of Organizational Aids on Comprehension and Retention," *Journal of Educational Psychology*, 46 (February 1955) 65-74.

Compares the results of comprehension tests given to Air Force trainees following

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the reading of two articles which had been revised to include six organizational aids, presented in 36 combinations, to determine the influence of these aids on comprehension immediately and 6 days later.

Clark, Charles M.; Veldman, Donald J.; and Thorpe, Joseph S. "Convergent and Divergent Thinking Abilities of Talented Adolescents," *Journal of Educational Psychology*, 56 (June 1965) 157-63.

Uses a battery of tests given to 192 pupils between ages 11 and 15 to assess the relationship of convergent and divergent thinking abilities with performance on verbal-facility and perceptual-associational measures.

Davis, Frederick B. "Research in Comprehension in Reading," *Reading Research Quarterly*, 3 (Summer 1968) 499-545.

Estimates the percent of non-chance variance of each of eight reading comprehension skills measured by specially constructed tests administered to 988 twelfth-grade pupils. Uniqueness analyses were performed, cross-validated by items and, separately, by examinees.

Davis, John Edwin. *The Ability of Fourth, Fifth, and Sixth Grade Pupils to Distinguish Between Fact and Opinion in an Experimentally Designed Reading Situation*. 181 p. (Ed.D., University of Oregon, 1964) *Dissertation Abstracts*, 25, No. 3, 1781. Order No. 64-9765, microfilm \$2.75, xerography \$8.40 from University Microfilms.

Investigates the ability of fourth-, fifth-, and sixth-grade pupils to distinguish between statements of fact and opinion.

Fincke, William Mann. *The Effect of Asking Questions to Develop Purposes for Reading on the Attainment of Higher Levels of Comprehension in a Population of Third Grade Children*. 140 p. (Ed.D., Temple University, 1968) *Dissertation Abstracts*, 29, No. 6, 1778-A. Order No. 68-14,131, microfilm \$3.00, xerography \$6.60 from University Microfilms.

Investigates the relationship between asking children questions to develop purposes for reading and their achievement of higher comprehension levels among 32 third graders from privileged, average, and disadvantaged economic environments.

Gaier, Eugene L.; Lee, Marilyn C.; and McQuitty, Louis L. "Response Patterns in a Test of Logical Inference," *Educational and Psychological Measurement*, 13 (Winter 1953) 550-67.

Presents an analysis of the responses of 674 high school students to 20 sets of three questions each; each set being similar in logical form but having different subject matter, premises, and conclusions.

Comprehension

Glennon, Vincent J. "Testing Meanings in Arithmetic," *Arithmetic 1949*, Supplementary Educational Monographs No. 70. (Chicago, Illinois: University of Chicago Press, 1949.)

Describes the causes of lag in the development of methods for measuring growth in understandings and meanings in arithmetic, describes the characteristics of a test developed for this purpose, and summarizes the results of the test given to pupils in grades 7, 8, 9, and 12.

Halfter, Irma T. and Douglass, Frances M. "Measurement of College Level Reading Competence in a Content Area," *Journal of Educational Research*, 53 (February 1960) 223-30.

Describes the steps taken in developing a test of college level reading competence in the field of business to determine if the skills required involve more than those usually regarded as comprehension in reading.

Hamilton, R. C. S. "The Construction and Administration of a Reading Comprehension Test Using Mathematical Material," *British Journal of Educational Psychology*, 23 (November 1953) 203-05.

Describes the purpose, nature, and development of an instrument for measuring reading comprehension of mathematical material and summarizes the results secured through giving it to 246 first-year pupils of a senior secondary group.

Hunt, Lyman C., Jr. "Can We Measure Specific Factors Associated with Reading Comprehension?" *Journal of Educational Research*, 51 (November 1957) 161-72.

Presents the results of a study, involving a differential item analysis of six factors of reading comprehension identified by Davis, to determine if each item group was a unique measure of its designated skill.

Kleck, Robert E. and Wheaton, Jerry. "Dogmatism and Responses to Opinion-Consistent and Opinion-Inconsistent Information," *Journal of Personality and Social Psychology*, 5 (February 1967) 249-52.

Compares measures of information recalled from and preference for one article supporting and one opposing previously expressed opinions using as subjects 72 high school juniors who had been pretested for dogmatism and for attitude toward a controversial issue.

Lepley, William M. "The Rationale, Construction, and Preliminary Try-Out of the Synonym Vocabulary Test," *Journal of Psychology*, 39 (January 1955) 215-25.

Discusses the selection of test items, their try-out, and the validity and reliability of

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a vocabulary test which was designed to test the hypothesis that a large synonym vocabulary is an especially valid indication of high intelligence.

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

Reports correlations of scores of 513 fifth-grade pupils on the Pintner General Ability Test, Verbal Series, Intermediate, Form A; the Gates Reading Survey, Form 1, Level of Comprehensions; and the Experimental Edition of the Intermediate Reading Tests, Science.

McCullough, Constance M. "Responses of Elementary School Children to Common Types of Reading Comprehension Questions," *Journal of Educational Research*, 5 (September 1957) 65-70.

Discusses the implications of the correlations between answers to four types of questions in reading (main idea, fact or detail, sequence or organization, and creative reading, that is, drawing conclusions; passing judgments, seeing relationships and the likes) in the case of first-, second-, and fourth-grade pupils.

Mullaly, Sister Columba. *The Retention and Recognition of Information*. Educational Research Monographs, 17, No. 3. (Washington: Catholic University of America Press, November 1952) 46 p.

Analyzes the results of a pretest, test, and retest given at varying intervals to 1,278 pupils (in six schools) varying in ages from 10 to 15 years and in school grades from 5 through 8 to determine the retention of information learned from one reading of a prose passage.

Murphy, Harold D. and Davis, Frederick B. "College Grades and Ability to Reason in Reading," *Peabody Journal of Education*, 27 (July 1949) 34-37.

Presents the results of a statistical analysis of data for 216 freshman students in Peabody College (September 1946) to determine correlation between course grades and ability to reason in reading, as measured by the Cooperative Reading Comprehension Test.

O'Donnell, Roy. "Awareness of Grammatical Structure and Reading Comprehension," *High School Journal*, 45 (February 1962) 184-88.

Reports coefficients of correlation based on tests of recognition of grammatical structure and information, as well as reading achievement tests given to 101 high school seniors.

Comprehension

Peterson, Margaret Jean. "Comparison of Flesch Readability Scores with a Test of Reading Comprehension," *Journal of Applied Psychology*, 40 (February 1956) 35-36.

Compares the Flesch readability scores with scores made on a test of reading comprehension for high-school pupils, using rewritten passages of 100 words each based on anecdotes in the 1951 issue of the *Readers Digest* which varied widely in difficulty.

Preston, Ralph C. "A New Approach to Judging the Validity of Reading Comprehension Tests: Summary of an Investigation," *Challenge and Experiment in Reading*, J. Allen Figurel, Ed. International Reading Association Conference Proceedings, 7 (1962) 166-67.

Administers the first 30 comprehension questions of the Cooperative English Test, Reading Comprehension (C2), (without the passages) to 128 college freshmen to determine the questions' validity and other test data related to ability to spot the answers.

Sharpe, Joseph Francis. *The Retention of Meaningful Material*. Educational Research Monographs, 16, No. 8. (Washington, D.C.: The Catholic University of America, June 1, 1952) 66 p.

Analyzes the nature and extent of the retention of once-read meaningful material, as revealed by a recall test administered to 2,492 children in grades 5 through 10 in 12 elementary and high schools in an effort to find answers to controversial questions in this field.

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.

Studies relationships between reading interests and reading comprehension hypothesizing that a reader's comprehension is related to and varies with the degree of interest he has in what he is reading.

Shores, J. Harlan. "Reading Science Materials for Two Distinct Purposes," *Elementary English*, 37 (December 1960) 546-53.

Determines relationships between reading for two purposes (ability to read for main ideas and to keep in mind a sequence) and scores on standardized tests of intelligence, reading, and science in addition to scores on three unpublished tests of reading science for children at grade 6.

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

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Analyzes the results of a test of reading for problem solving in science given to 182 fourth-, fifth-, and sixth-grade pupils to test the hypothesis that reading ability differentiates beyond the primary grades into somewhat specific abilities to read different kinds of material for different purposes.

Spache, George. "The Construction and Validation of a Word-Type Auditory Comprehension Reading Test," *Educational and Psychological Measurement*, 10 (Summer 1950) 249-53.

Describes the need for and construction of a silent comprehension test and an auditory comprehension test based on comparable passages and presents data relative to the reliabilities of the total and part scores of the tests.

Stewart, Daniel K. "Comparison of the Results of a Logical Questionnaire with Reading Comprehension, Verbal Ability, and Grade Point Averages," *Journal of Psychology*, 51 (n.m. 1961) 289-92.

Relates the administering of a test of predictive logic to 131 college freshmen, from which high- and low-scoring groups were selected to compare reading comprehension, verbal ability, and grade-point averages in college.

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.

Examines the effect of frequently used oral language patterns in written material on the reading comprehension of fourth-grade students.

Townsend, Agatha. "The Junior Scholastic Aptitude Test in the Independent-School Program," *1951 Achievement Testing Program in Independent Schools and Supplementary Studies*. Educational Records Bulletin No. 57, 58-65. (New York: Educational Records Bureau, July 1951.)

Presents correlations between verbal and numerical totals obtained on the Junior Scholastic Aptitude Test by independent school pupils in the eighth grade and scores on the Cooperative English Test: Reading Comprehension.

Ward, Louis R. "Measuring Comprehension in Reading," *College English*, 17 (May 1956) 481-83.

Discusses assumptions underlying an effort to develop a test which measures the components of comprehension, describes the nature of the test that was developed, and presents conclusions based upon its use.

Section 3: Word Attack

Boyd, Robert David. "Growth of Phonic Skills in Reading," *Clinical Studies in Reading III*, Helen M. Robinson and Helen K. Smith, Eds. Supplementary Educational Monographs, No. 97, Part 2, 68-87. (Chicago: University of Chicago Press, 1968.)

Plots the pattern of growth in phonic skills based on an instrument used with 15 boys and 15 girls at each grade level from 1 through 6.

Chall, Jeanne S. "The Roswell-Chall Diagnostic Reading Test of Word Analysis Skills: Evidence of Reliability and Validity," *Reading Teacher*, 11 (February 1958) 179-83.

Describes the general nature of the test, discusses its reliability and validity, and reports the average number of errors made on the test by pupils at the respective reading grade levels from 1 through 8.

Triggs, Frances Oralind. "The Development of Measured Word Recognition Skills, Grade Four Through the College Freshman Year," *Educational and Psychological Measurement*, 12 (Autumn 1952) 345-49.

Compares scores made by testees in grades 4, 5, 6, 10, and 12, and the freshman year in college, on tests of ability to hear and match letter sounds. Also compares the scores of college students in different college departments to hear and match sounds and to divide words into syllables.

Section 4: Rate

Carlson, Thorsten R. "Effect of Certain Test Factors in Measurement of Speed of Reading," *Journal of Educational Research*, 44 (March 1951) 543-49.

Compares the Pearson Product Moment R for every combination of results on three types of reading tests, each type representing various levels of difficulty, to determine the comparability of test scores when the tests used vary in significant respects.

Gifford, Edith M. and Marson, Albert R. "Test Anxiety, Reading Rate, and Task Experience," *Journal of Educational Research*, 59 (March 1966) 303-06.

Analyzes the performance of 31 fourth-grade pupils on an experimental reading rate test to determine the effects of reading rates of the experimental variables of level of anxiety, pretest experience, and assigned purpose for reading.

Humphry, Kenneth H. "An Investigation of Amount-Limit and Time-Limit Methods of Measuring Rate of Reading," *Journal of Developmental Reading*, 1 (October 1957) 41-54.

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Analyzes test scores from 166 students in a college reading program to determine the reliability of six rate tests and the interrelations among them; the variability of reading rate for groups of fast, average, and slow readers; and the variability of reading rate within an individual for consecutive periods of time.

Maxey, Earl James. *An Investigation of the Rasch Probability Model for Speed in an Oral Reading Test*. 429 p. (Ph.D., The University of Iowa, 1967) *Dissertation Abstracts*, 28, No. 8, 3075-A. Order No. 67-16,817, microfilm \$5.50, xerography \$19.35 from University Microfilms.

Describes the theoretical development of the Rasch Probability Model for speed in an oral reading test and studies how various tests fit the model.

Maxwell, Martha J. "An Experimental Investigation of the Effect of Instructional Set and Information on Reading Rate," *The Philosophical and Sociological Bases of Reading*, E. L. Thurston and L. E. Hafner, Eds. Yearbook of the National Reading Conference, 14 (1965) 181-87.

Compares mean speed and comprehension scores for four groups composed of 30 male and 74 female college students administered two forms of a reading test under differing speed instructions and sequences. Also pre-post treatment scores for a group exposed to information and practice on reading techniques were compared with that of a control group.

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

Explains the understandings necessary for evaluating a child's reading levels and the processes in corroborating content validity and reliability of the Standard Reading Inventory.

McDonald, Arthur S., Ed. "Research for the Classroom - Rate and Reading Flexibility," *Journal of Reading*, 8 (January 1965) 187-91.

Reviews the literature on rate and reading flexibility based on 41 reports of research.

Wiggins, Richard H. "Effects of Three Typographical Variables on Speed of Reading," *Journal of Typographic Research*, 1 (January 1967) 5-18.

Reports two experiments investigating the effects of variation on pica lengths and lower-case alphabet lengths and line length and variable spacing on reading speed for 324 subjects, average age 18.9 years in the first experiment, and 300 subjects, average age 19.3 years in the second.

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Section 5: Comprehension Rate

Brethower, Dale M. "Some Influences of 'Speed Set' on Rate of Comprehension During Testing," *College and Adult Reading*, D. M. Wark, Ed. Yearbook of the North Central Reading Association, 5 (1968) 93-103.

Compares the effect of altering directions for taking a reading test on the rate of comprehension by testing a total of 158 university students and adults in a series of three experiments.

Buswell, G.T. "The Relationship Between Rate of Thinking and Rate of Reading," *School Review*, 59 (September 1951) 339-46.

Bases conclusions upon data secured from 77 senior college students through the use of three tests used as measures of rate of thinking and the Dvorak and Van Wagenen Diagnostic Examination of Silent Reading Abilities, Part I, Rate of Comprehension.

Cosper, Russell and Mills, Barriss. "Reading Comprehension and Speed," *School and Society*, 77 (June 6, 1953) 359-62.

Summarizes the gains made during given semesters among 700 college students as a result of developmental training in reading given in a 2-hour-a-week laboratory course and considers the implications of the findings in relation to valid procedures in evaluation.

Fricke, Benno G. "Speed and Level Versus Rate and Accuracy of Reading," *Yearbook of the National Council on Measurements Used in Education*, 14 (1957) 73-77.

Uses reading test scores of 294 college freshmen on the Cooperative English Test C2: Reading Comprehension, in a critical study of differences between the speed and level scores as usually calculated with rate and accuracy scores calculated by a method devised by the investigator.

Friesen, John W. "An Experiment in Testing At the K.U. Reading Laboratory," *University of Kansas Bulletin of Education*, 22 (November 1967) 5-9.

Administers two forms of a reading rate test developed at the University of Kansas Reading and Study Skills Laboratory to 70 students and compares them with each other and with standardized tests.

Hill, W. R. "Influences of Direction upon the Reading Flexibility of Advanced College Readers," *New Concepts in College and Adult Reading*, Eric L. Thurston and Lawrence E. Hafner, Eds. Yearbook of the National Reading Conference, 13 (1964) 119-25.

Validity and Reliability Problems of Reading Subskill and Subarea Measurement

Studies the influence of prereading directions on 54 college freshmen's performances on rate and various comprehension measures. A second phase of the study noted the effect of rereading upon accuracy of comprehension.

Letson, Charles T. "Speed and Comprehension in Reading," *Journal of Educational Research*, 52 (October 1958) 49-53.

Presents finding of a study of relationships between speed and comprehension in which 601 college freshmen were given four tests; two were read for the same purpose but consisted of simple and difficult materials; two consisted of passages of equal difficulty but were read for different purposes.

Levin, Beatrice Jackson. *An Investigation of the Flexibility of Reading Rate*. 148 p. (Ed.D., Temple University, 1966) *Dissertation Abstracts*, 27, No. 4, 959-A. Order No. 66-9215, microfilm \$3.00, xerography \$7.00 from University Microfilms.

Investigates changes in the reading rate according to the difficulty level of the material and the purpose for reading with a population of 100 ninth-grade students.

McDonald, Arthur S. "Flexibility in Reading Approaches: Measurement and Development," *Combining Research Results and Good Practices*. International Reading Association Conference Proceedings, 11, Part 2 (1966) 67-71.

Defines reading flexibility and discusses the general problems involved in varying one's reading rate with the different types of material encountered.

McDonald, Arthur S. "A Reading Versatility Inventory," *Significant Elements in College and Adult Reading Improvement*, Oscar S. Causey, Ed. Yearbook of the National Reading Conference for Colleges and Adults, 7 (1958) 48-53.

Describes the design of an inventory of reading versatility which consists of three reading selections, each of which requires a different approach, and presents data showing the correlation between the scores made on the different tests.

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.

Sets out to determine the relationships between reading versatility and other reading and mental abilities.

Preston, Ralph C. and Botel, Morton. "Reading Comprehension Tested under Timed and Untimed Conditions," *School and Society*, 74 (August 4, 1951) 71.

Comprehension Rate

Reports the results of two experiments with college students which aimed to secure evidence concerning the relationship between speed and comprehension in reading through the use of tests given under timed and untimed conditions.

Rankin, Earl F., Jr. "The Relationship Between Reading Rate and Comprehension," *Problems, Programs and Projects in College-Adult Reading*, Emery P. Bliesmer and Ralph C. Staiger, Eds. Yearbook of the National Reading Conference, 11 (1962) 1-5.

Reviews 16 references relating reading rate to comprehension.

Shores, Harlan and Husbands, Kenneth L. "Are Fast Readers the Best Readers?" *Elementary English*, 27 (January 1950) 52-57.

Presents data secured from 90 pupils in grades 4 to 6 to determine the relationship between rate of reading and comprehension when reading is employed as a tool for problem solving in the area of science.

Theophemia, Sister Mary. "Testing Flexibility in Reading," *Challenge and Experiment in Reading*, J. Allen Figurel, Ed. International Reading Association Conference Proceedings, 7 (1962) 138-39.

Reports the administering of the Reading Versatility Test to 450 students in grade 8 and the calculating of the range of rates and the ratios among them.

Section 6: Study Skills

Ahmann, J. Stanley and Glock, Marvin D. "The Utility of Study Habits and Attitudes Inventory in a College Reading Program," *Journal of Educational Research*, 51 (December 1957) 297-303.

Presents a statistical analysis of data secured from 35 freshmen students in an experimental group and 46 in a control group to determine the value of including the survey of study attitudes and habits in a test battery for a college reading program.

Herlin, Wayne Richard. *A Comparison of Oral Reading Errors on the Monroe Diagnostic Reading Examination and the Durrell Analysis of Reading Difficulty*. 138 p. (Ph.D., University of Utah, 1963) *Dissertation Abstracts*, 24, No. 10, 4084. Order No. 64-3146, microfilm \$2.75, xerography \$6.60 from University Microfilms.

Compares different methods of diagnosing the oral reading errors of disabled readers by using the Monroe Diagnostic Reading Examination and the Durrell Analysis of Reading Difficulty.

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Holtzman, Wayne H. and Brown, William F. "Evaluating the Study Habits and Attitudes of High School Students," *Journal of Educational Psychology*, 59 (December 1968) 404-09.

Uses 11,218 students in grades 7 to 12 in standardizing a new form of a test of study habits and attitudes and reports data on reliability with 237 ninth-grade students and on validations with 10,888 students.

Howell, Wallace J. "Work-Study Skills of Children in Grades IV to VIII," *Elementary School Journal*, 50 (March 1950) 384-89.

Reports the progress in work-study skills of 264 boys and girls in grades 4 through 8 as measured by the Iowa Every Pupil Test of Basic Skills, Test B, Elementary and Advanced.

Section 7: Oral Reading

Della-Piana, Gabriel M. and Herlin, Wayne R. "Are Normative Oral Reading Error Profiles Necessary?" *Improvement of Reading Through Classroom Practice*, J. Allen Figurel, Ed. International Reading Association Conference Proceedings, 9 (1964) 306-09.

Studies oral reading error profiles by securing data on 43 retarded readers and compares their performances on the oral reading tests of the Monroe and Durrell Diagnostic Tests in terms of raw error scores and normative error scores (standard or Z-scores).

Ladd, Mary Eleanor. *A Comparison of Two Types of Training with Reference to Developing Skill in Diagnostic Oral Reading Testing*. 131 p. (Ed.D., Florida State University, 1961) *Dissertation Abstracts*, 22, No. 8, 2707. Order No. 61-5648, microfilm \$2.75, xerography \$6.40 from University Microfilms.

Compares for effectiveness in scoring the Gilmore Oral Reading Test 40 teachers who had no previous experience scoring a standardized oral reading test after they were given two patterns of training.

McCoard, William B. and LeCount, Samuel N. "An Oral Reading Evaluation of Good and Poor Silent Readers," *Speech Monographs*, 18 (November 1951) 288-91.

Presents conclusions from an experiment with two groups of 50 college students, each selected on the basis of scores on the Cooperative Reading Comprehension Test, to determine the relation of silent reading ability to broad, communicative effectiveness in oral reading as determined by a judging panel of speech authorities.

Spache, George. "A Comparison of Certain Oral Reading Tests," *Journal of Educational Research*, 43 (February 1950) 441-52.

Other Subareas

Compares the vocabulary and the number of words read per second in the case of two oral-reading tests: Durrell's Analysis of Reading Difficulty Kits and the Gray's Oral Reading Check Tests.

Stern, LeRoy Jacob. *An Evaluative Study of the Personal Reading Program for the Ninth Grade at the Flandreau Indian School*. 154 p. (Ed.D., University of South Dakota, 1968) *Dissertation Abstracts*, 29, No. 8, 2454-A. Order No. 69-3130, microfilm \$3.00, xerography \$7.20 from University Microfilms.

Compares reading gains made by ninth-grade pupils in the Flandreau Indian School in South Dakota who were enrolled in the personal reading program with gains made by pupils of the same school and grade enrolled in the regular English program.

Wells, Charles A. *The Value of an Oral Reading Test for Diagnosis of the Reading Difficulties of College Freshmen of Low Academic Performance*. Psychological Monographs, 64, No. 2 (1950) 35 p.

Correlates performance of 80 freshmen college students on an oral reading test prepared for the purpose with scores on tests of speed and level of silent comprehension, vocabulary, sentence structure, and intelligence to determine the diagnostic implications of specific types of individual reading errors.

Section 8: Other Subareas

Hatch, Shirley and Sheldon, William D. "Strengths and Weaknesses in Reading of a Group of Fourth Grade Children," *Elementary English*, 27 (April 1950) 254-60.

Presents an analysis of the errors in reading made by 18 good and 19 poor readers in fourth-grade classes of four school systems.

Lyle, Jack. "Semantic Differential Scales for Newspaper Research," *Journalism Quarterly*, 37 (Autumn 1960) 559-62, 646.

Reports an attempt to adapt the semantic differential specifically for measuring reader attitudes toward newspapers and to do so by means other than arbitrary selection of adjectives.

Schmidt, Bernard. "Student Attitude Toward Reading," *Research and Evaluation in College Reading*, Oscar S. Causey and Emery P. Bliesmer, Eds. Yearbook of the National Reading Conference for College and Adults, 9 (1960) 36-41.

Describes the steps taken in developing two attitude measuring instruments (attitude toward reading and attitude toward English 185, a developmental reading course), preliminary to further research concerning the influence of English 185 on attitude toward reading, on reading efficiency, and on grade point index.

Validity and Reliability Problems of Reading Subskill and Subarea Measurement

Schubert, Delwyn G. "The Relationship Between Reading Ability and Literary Appreciation," *California Journal of Educational Research*, 4 (November 1953) 201-02.

Compares the scores on the College Form of the Carroll Prose Appreciation Test made by a group of 50 retarded readers at the college level and a group of unselected college students.

Sheldon, William D. and Hatch, Shirley. "Strengths and Weaknesses in Reading of a Group of Second-Grade Children," *Educational Administration and Supervision*, 37 (November 1951) 405-14.

Summarizes findings concerning the strengths and weaknesses of 40 good and 41 poor readers in second-grade classes of the eight school systems studied.

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.

Presents a summary of the errors made in reading by 30 good and 32 poor readers, as measured by the Durrell Analysis of Reading Difficulty.

Sheldon, William D. and Hatch, Shirley. "Strengths and Weaknesses in Reading of a Group of Third-Grade Children," *Elementary School Journal*, 50 (April 1950) 445-52.

Presents an analysis of the strengths and weaknesses of 21 good and 20 poor readers in third-grade classes of several school systems, as measured by Durrell's Analysis of Reading Difficulty.

Smith, Kenneth J. and Seifert, Joan C. "Developing a Scale to Determine First Graders' Attitudes Toward Reading," *Vistas in Reading*. International Reading Association Conference Proceedings, 11, Part 1 (1966) 542-44.

Points out that the child who dislikes reading has little chance of becoming a mature reader.

Steiert, Katherine. *The Designing of an Inventory to Investigate Recreational Reading Interests of Pupils in Grades Five and Six*. 371 p. (Ph.D., Kent State University, 1966) *Dissertation Abstracts*, 28, No. 1, 148-A. Order No. 67-9432, microfilm \$4.75, xerography \$16.90 from University Microfilms.

Designs an Annotated Titles Inventory and administers it to 450 fifth- and sixth-grade students in two elementary schools to reveal their reading habits.

Other Subareas

Wagner, Louise Durkee. "Measuring the Map-Reading Ability of Sixth-Grade Children," *Elementary School Journal*, 53 (February 1953) 338-44.

Reports the results of a survey of the map-reading abilities taught at the sixth-grade level and the percent of correct answers of 100 sixth-grade pupils on test items dealing with specific map skills.

Part III

Informal Reading Achievement Measures

Part III covers informal measures of reading achievement used by the classroom teacher. A number of studies conducted on the problems of developing and using informal reading inventories, check lists, and rating scales are included in this section.

Section 1: Informal Reading Inventories

Brown, Sandra Rose. *A Comparison of Five Widely Used Standardized Reading Tests and an Informal Reading Inventory for a Selected Group of Elementary School Children.* 191 p. (Ed.D., University of Georgia, 1963) *Dissertation Abstracts*, 25, No. 2, 996-97. Order No. 64-441, microfilm \$2.75, xerography \$8.80 from University Microfilms.

Analyzes the results of five standardized reading tests and an informal reading inventory to determine if a difference existed in the instructional reading level of the various instruments.

Elder, Richard. "Behavioral Criteria and Pupil Achievement," *Michigan Education Journal*, 40 (March 1963) 502-36.

Reports the responses of selected pupils in grade 2 and all pupils in grades 3 to 6 to seven questions about their reactions to six selections in which key words were replaced by nonsense syllables to test Killgallon's rule that 95 percent must be known for correct placement of materials.

Hangoed, James Richard. *An Investigation to Determine the Competency of Teachers and Student Teachers in Administering an Informal Reading Inventory.* 199 p. (Ed. D., Wayne State University, 1965) *Dissertation Abstracts*, 27, No. 6, 1705-A. Order No. 66-10,109, microfilm \$3.00, xerography \$9.00 from University Microfilms.

Used tape recordings of the reading performances of two fourth-grade pupils to ascertain the value of an informal reading inventory for classroom teachers and the competency of classroom teachers and student teachers in assessing the inventory.

Leibert, Robert E. *An Investigation of the Differences in Reading Performance on Two Tests of Reading.* 184 p. (Ed.D., Syracuse University, 1965) *Dissertation Abstracts*, 26, No. 10, 5919. Order No. 66-1012, microfilm \$3.00, xerography \$8.40 from University Microfilms.

Studies the Gates Advanced Primary Reading Tests and an informal reading inventory to identify differences in reading measurements.

McCracken, Robert A. "The Oral Reading Performance of a Second Grade Class

Informal Reading Inventories

Using an Informal Reading Test," *Journal of Educational Research*, 55 (November 1961) 113-17.

Reports the administering of an informal reading test using four paragraphs from the Sheldon Teacher's Manual to 36 pupils in grade 2 and compares the high, average, and low groups on measures of time, number and types of errors, and comprehension.

McCracken, Robert A. "Standardized Reading Tests and Informal Reading Inventories," *Education*, 82 (February 1962) 366-69.

Compares reading achievement scores on the Iowa Test of Basic Skills with scores on an informal inventory for 56 pupils in grade 6.

Patty, Delbert Lee. *A Comparison of Standardized Oral Reading Test Scores and Informal Reading Inventory Scores*. 191 p. (Ed.D., Ball State University, 1965) *Dissertation Abstracts*, 26, No. 9, 5302-03. Order No. 65-13,037, microfilm \$3.00, xerography \$8.80 from University Microfilms.

Proceeds to determine whether reading inventories and standardized oral reading tests yield similar data for determining reading levels of children.

Simpson, Hazel D. "Establishing the Instructional Level," *Vistas in Reading*. International Reading Association Conference Proceedings, 11, Part 1 (1966) 540-42.

States that testing reading ability with an informal reading inventory, with discrimination, offers useful information in a short period of time.

Sipay, Edward Robert. *A Comparison of Standardized Reading Achievement Test Scores and Functional Reading Levels*. 259 p. (Ph.D., The University of Connecticut, 1961) *Dissertation Abstracts*, 22, No. 8, 2639-40. Order No. 61-5431, microfilm \$3.35, xerography \$11.70 from University Microfilms.

Attempts to ascertain the extent to which the level of reading achievement as measured by standardized tests differed from the instruction and frustration levels determined by the informal reading inventory.

Williams, Joan Lee. *A Comparison of Standardized Reading Test Scores and Informal Reading Inventory Scores*. 194 p. (Ph.D., Southern Illinois University, 1963) *Dissertation Abstracts*, 24, No. 12, 5262. Order No. 64-4485, microfilm \$2.75, xerography \$8.80 from University Microfilms.

Compares the results of the California Reading Test, the Gates Reading Survey, the Metropolitan Reading Test, and the California Short-Form Test of Mental Maturity

Informal Reading Achievement Measures

tests when administered to 73 subjects in the fourth, fifth, and sixth grades in one school building.

Section 2: Check Lists, Rating Scales, and Others

Connor, D.V. "The Relationship Between Reading Achievement and Voluntary Reading of Children," *Educational Review* (Journal of the Institute of Education, University of Birmingham, England), 6 (June 1954) 221-27.

Bases conclusions on data secured from 214 12-year-old children (115 boys and 99 girls), including scores on reading and intelligence tests and responses to instruments which aimed to assess quality and quantity of reading.

Croft, John. "A Teacher's Survey of His Backward Class in a Secondary Modern School," *British Journal of Educational Psychology*, 2 (June 1951) 135-44.

Summarizes data secured through a series of intelligence, achievement, and sociometric tests and a survey of social background and interests, in an effort to determine the types of backwardness involved in a class of 32 pupils.

Darby, Charles A., Jr. "Referred and Self-Initiated Students in Reading Study Program," *Journal of Reading* (January 1966) 186-92.

Compares 91 college students who either self-initiated or were referred for instruction on the bases of reading ability, study habits and attitudes, amount of time spent in the reading laboratory, and the degree of attraction to the program.

Gaetano, Mary Ann Kinneer. *Determination of Reading Levels by Pupil Choice, Teacher Judgement, School Practice, Test Score, and Informal Inventory.* 392 p. (Ph.D., Ohio University, 1968) *Dissertation Abstracts*, 29, No. 9, 2885-A. Order No. 69-5093, microfilm \$5.00, xerography \$17.80 from University Microfilms.

Investigates the hypothesis that reading proficiency might be accurately reflected in students' self appraisal by asking 50 fifth graders to judge their own reading levels and then by testing them.

Jones, Robert L. and Beldo, Leslie A. "Methodological Developments in Readership Data Gathering," *Journalism Quarterly*, 30 (Summer 1953) 345-53.

Describes the methods used during three eras in gathering and recording data for readership studies by the Research Division of the School of Business, University of Minnesota.

Klare, George R.; Gustafson, Levarl M.; and Mabry, James E. "The Reading Interests of Airmen During Basic Training," *Air Research and Development*

Check Lists, Rating Scales, and Others

Command, Research Bulletin. (San Antonio, Texas: U.S.A.F., Human Resources Research Center, 1953) 10 p.

Summarizes the rankings given by 398 airmen to 117 items on a modified Waples Tyler Check List of nonfictional reading interests when requested to mark each item as very interesting, of average interest, or not interesting.

Levin, Janice and Stacey, Chalmers L. "Awareness of Vocabulary Size: Its Relation to Class Standing and Sex Differences," *Journal of Educational Psychology*, 42 (March 1951) 174-84.

Analyzes vocabulary test scores of 143 college sophomores (67 males and 76 females) to determine the relation of awareness of vocabulary size to class standing and sex differences.

Merrill, Jimmie Dale. *An Investigation of Teachers' Informal Estimate of First-Grade Reading Readiness.* 164 p. (Ed.D., University of Oregon, 1968) *Dissertation Abstracts*, 29, No. 11, 3775-A. Order No. 69-6648, microfilm \$3.00, xerography \$7.60 from University Microfilms.

Compares correlations existing between teachers' informal estimates of their pupils' reading readiness and first-grade reading achievement with those existing between a standardized reading readiness test and first-grade reading achievement.

Pond, Frederick L. "A Simplified Method for Scoring an Inventory of Reading Experiences," *Journal of Educational Research*, 45 (April 1952) 585-97.

Describes the basic ideas underlying a simplified method of evaluating through a questionnaire technique the reading experiences of pupils and the steps involved in the development of the inventory of reading experiences; presents data relating to its reliability.

Purcell, John Wallace. "Poor Reading Habits: Their Rank Order," *The Reading Teacher*, 16 (March 1963) 353-58.

Reports the results of polling 827 college students and adults who voluntarily enrolled in reading improvement classes to determine in order of importance which of 12 most common reading habits applied to them.

Simpson, Ray H. and Camp, Kenneth L. "Diagnosing Community Reading," *School Review*, 41 (February 1953) 98-100.

Summarizes data concerning out-of-school behavior goals in reading secured from a questionnaire, filled out by the parents of secondary-school pupils in five schools and representing 95 families; points out potential values of such a survey.

Informal Reading Achievement Measures

Spaights, Ernest. "Accuracy of Self-Estimation of Junior High School Students," *Journal of Educational Research*, 58 (May and June 1965) 416-19.

Examines the relationship between actual and perceived school achievement including reading of 80 seventh-grade students.

Tillson, M. W. "The Reading Maturity Level of Selected College Students: An Application of the Principles Set Forth in Maturity in Reading," *Journal of Developmental Reading*, 1 (Winter 1958) 53-58.

Presents the results of a study of 32 superior readers at Purdue University through the application of the Scale of Maturity in Reading.

Wollner, Mary Hayden Bowen. *Children's Voluntary Reading as an Expression of Individuality*. Contributions to Education No. 944. (New York: Bureau of Publications, Teachers College, Columbia University, 1949) 117 p.

Presents conclusions based on a quantitative and qualitative analysis of data pertaining to a group of normal readers, 12 to 14 years of age, to test the assumption that broad generalizations based on coefficients of correlation pertaining to voluntary reading cannot be rigidly applied.

Section 3: Teacher Evaluations

Astor, Martin H. "Reading Test or Counseling Interview to Predict Success in College?" *Journal of Reading*, 11 (February 1968) 343-45.

Compares the predictive validity of a reading test and a personal interview for 20 students who took nonmatriculated course offerings using as the criterion variable whether students completed the courses successfully.

Bauernfeind, Robert H. "Teacher Preferences for Types of Standardized Tests - Studies in Three Illinois School Districts, 1964-1965," *Journal of Educational Measurement*, 4 (Spring 1967) 11-14.

Tabulates teacher preferences for 41 different types of standardized test information (reading comprehension, general vocabulary, non-verbal ability, etc.) by polling teachers from three school districts.

Burnett, Richard W. "The Diagnostic Proficiency of Teachers of Reading," *The Reading Teacher*, 16 (January 1963) 229-34.

Uses a diagnostic problem-solving test in reading to study 75 undergraduate elementary education enrollees, 93 elementary teachers, and 19 trained reading specialists.

Teacher Evaluations

Coleman, J. H. and Jungeblut, Ann. "Children's Likes and Dislikes about What They Read," *Journal of Educational Research*, 54 (February 1961) 221-28.

Relates an attempt to develop a dependable scale to measure interest-aversion applied to 81 selections by pupils at grades 3, 4, 5, and 6.

Daniel, John Emerson. "The Effectiveness of Various Procedures in Reading Level Placement," *Elementary English*, 39 (October 1962) 590-600.

Relates scores on the Gates Primary Reading Test, the Buck's County Reading Test, and Killgallon Informal Reading Inventory to teachers' grouping for 35 pupils in grade 3.

Ebbesen, James A. "Kindergarten Teacher Rankings as Predictors of Academic Achievement in the Primary Grades," *Journal of Educational Measurement*, 5 (Fall 1968) 259-64.

Investigates the relationship between kindergarten teacher rankings and academic achievement for three different classes of 157, 182, and 197 pupils.

Emans, Robert. "Teacher Evaluations of Reading Skills and Individualized Reading," *Elementary English*, 42 (March 1965) 258-60.

Investigates 20 teachers selected from a graduate remedial reading course to evaluate their competencies to rank the weaknesses in word attack skills among 40 children in which each teacher judged the skills of two pupils and compares the rankings of teachers with the rankings as determined by the children's performances on a standardized reading diagnostic test.

Henig, Max S. "Predictive Value of a Reading-Readiness Test and of Teachers' Forecasts," *Elementary School Journal*, 50 (September 1949) 41-46.

Compares the forecasting value of the Lee-Clark Reading Tests given to 98 beginning first-grade pupils and of teachers' estimates of their probable success in learning to read.

Jordan, Twila Lurline Avard. *Teacher Evaluation of Reading Under-Achievement of Intermediate Grade Students as Compared to Evaluation of Reading Under-Achievement by Discriminate Testing Procedures*. 78 p. (Ed.D., Oklahoma State University, 1965) *Dissertation Abstracts*, 27, No. 1, 140-A. Order No. 66-4028, microfilm \$3.00, xerography \$4.20 from University Microfilms.

Compares teacher evaluation of reading achievement with the results of a rating instrument derived from test scores of the Wechsler Intelligence Scale for Children and the California Achievement Test when administered to 225 fourth-grade students.

Informal Reading Achievement Measures

Kermoian, Samuel B. "Teacher Appraisal of First Grade Readiness," *Elementary English*, 39 (March 1962) 196-201.

Compares the readiness ratings given by 13 first-grade teachers with scores made by 276 children on the Metropolitan Readiness Test Battery.

Koppman, Patricia S. and La Pray, Margaret H. "Teacher Ratings and Pupil Reading Readiness Scores," *The Reading Teacher*, 22 (April 1969) 603-08.

Investigates the relationship between teacher ratings of reading readiness and pupil performance on three specifically designed tests with three groups of 478 kindergarten children who equally represent three socioeconomic levels and two maturity levels.

Littrell, J. Harvey. "Teacher Estimates Versus Reading Test Results," *Journal of Reading*, 12 (October 1968) 18-23.

Uses product-moment and tetrachoric correlation coefficients to examine the relationship between standardized test scores and teacher ratings on four reading-associated traits using 397 eleventh-grade students in six Kansas high schools.

Lytton, H. "An Experiment in Selection for Remedial Education," *British Journal of Educational Psychology*, 31 (February 1961) 79-94.

Compares progress made by pupils selected for instruction by tests with those selected by teachers.

Mattick, William E. "Predicting Success in the First Grade," *Elementary School Journal*, 63 (February 1963) 273-76.

Presents a comparison of kindergarten teachers' predictions with scores on the Metropolitan Readiness Tests, the Lee-Clark Reading Readiness Test, the California Short-Form Mental Maturity, and the Lorge-Thorndike Intelligence Tests; and a comparison of the five variables with grade-1 teachers' judgments, based on 972 children.

Preston, Ralph C. "The Reading Status of Children Classified by Teachers as Retarded Readers," *Elementary English*, 30 (April 1953) 225-27.

Presents and interprets the Wechsler IQ's and the reading indexes of 82 pupils in two schools who were designated by their teachers as having distinct reading retardation.

Seedorf, Evelyn H. "An Experimental Study in the Amount of Agreement among

Teacher Evaluations

Judges in Evaluating Oral Interpretation," *Journal of Educational Research*, 43 (September 1949) 10-21.

Bases conclusions on the judgments of varying numbers of individuals concerning the effectiveness of the oral interpretation of literary selections by average readers before and after training.

Smith, Milton Howard. *Kindergarten Teachers' Judgments of Their Pupils' Readiness for Reading Instruction Compared with Readiness Test Results and First Grade Achievement Measure*. 135 p. (Ed.D., University of Oregon, 1968) *Dissertation Abstracts*, 29, No. 7, 2044-A. Order No. 69-43, microfilm \$3.00, xerography \$6.40 from University Microfilms

Attempts to determine the predictive value of teacher and test evaluations by comparing reading readiness as judged by kindergarten teachers to readiness-test results and first-grade achievement.

Starr, Fay H. and Pancrazio, Sally. *Teacher Evaluation as a Measure of Pupil Performance*. 51 p. (CRP-S-330, Southern Illinois University, Edwardsville, 1966) ED 010 187, microfiche \$0.25, hard copy \$2.65 from EDRS.

Uses scores from 16 variables to assess differences among 194 junior high school boys and girls of four Texas communities who were among more than 1,500 pupils included in the Texas Human Talent Project.

Tyler, Tracy Ferris, Jr. *The Relationship of Teacher Judgements and Environmental Data at the Kindergarten and Grade One Levels to Reading Achievement in Grade Four*. 252 p. (Ph.D., University of Minnesota, 1966) *Dissertation Abstracts*, 28, No. 6, 2151-A. Order No. 67-16,252, microfilm \$3.25, xerography \$11.50 from University Microfilms.

Examines the accuracy of kindergarten and first-grade teacher judgments on selected learner characteristics and parent-reported cultural and environmental data in forecasting fourth-grade reading success.

Zaruba, Elizabeth A. "Objective and Subjective Evaluation at Grade One," *The Reading Teacher*, 22 (October 1968) 50-54.

Examines the predictive values of three September measures of reading readiness as related to June test results and compares June teacher evaluation for 93 boys and girls with other data.

Part IV

Problems of Reading Growth Measurement

Part IV considers problems involved in valid and reliable estimation of reading growth. The studies in this section not only examine the problems in this area but also suggest procedures which may overcome some of these problems.

Section 1: Multiple Criteria Use

Arnold, Bettie B. and Arnold, Richard D. "Measures and Judgments of Reading Level for Disabled Readers," *Minnesota Reading Quarterly*, 11 (October 1966) 9-15, 29.

Compares the reading grade level from standardized tests and from informal tests with professional judgments of reading levels for 46 boys and 7 girls, aged 8 to 18 years, enrolled in a reading clinic.

Balow, Bruce. "The Long-Term Effect of Remedial Reading Instruction," *The Reading Teacher*, 18 (April 1965) 581-86.

Summarized the results of three separate investigations on the effect of remedial instruction for severely disabled readers who attended a psycho-educational clinic at a midwest university. A total of 131 cases was selected with capacity to achieve at or above fifth- or sixth-grade level, but the pupils' reading performances were three or more years below expectancy.

Chansky, Norman M. and Bregman, Martin. "Improvement of Reading in College," *Journal of Educational Research*, 51 (December 1957) 313-17.

Analyzes test scores to determine whether improvement of vocabulary and of reading comprehension could be predicted from scores on the American Council on Education Language Test, from the Brown-Holzman Survey of Study Habits and Attitudes, and from the hysteria and psychasthenia scores of the Minnesota Multiphasic Personality Inventory.

Frost, Barry P. "The Role of Intelligence 'C' in the Selection of Children for Remedial Teaching of Reading," *Alberta Journal of Educational Research*, 9 (June 1963) 73-78.

Calculates through the use of coefficients of correlation the relationship between scores on the Raven Progressive Matrices, the Mill Hill Vocabulary Scale (Oral Form), and the Holborn Reading Scale to test the validity of using intelligence tests to predict improvement in remedial reading classes.

Geake, R. Robert. "Predictors of Reading Rate Improvement," *The Inter-Institutional Seminar in Child Development, Collected Papers 1962*, 86-93. (Dearborn, Michigan: Edison Institute, 1963.)

Multiple Criteria Use

Attempts to determine the relationship of intelligence, perceptual speed, and closure to reading rate improvement in a study of 60 grade-7-through-12 students, organized in four groups in terms of intelligence and initial reading rate, who were given two perceptual tests before, and a reading rate test immediately after, and 15 weeks after 15 sessions of training in rapid reading.

Hardison, Richard Cheves. *Some Apparent Results of College Reading Improvement Programs Reconsidered in Terms of the Method of Measuring Improvement.* 118 p. (Ed.D., University of Southern California, 1961) *Dissertation Abstracts*, 22, No. 1, 152. L.C. Card No. Mic. 61-2531, microfilm \$2.75, xerography \$5.80 from University Microfilms.

Explores the hypothesis that college reading programs might yield results which reflect the nature of the measurements used as well as the effects of the programs themselves by testing 403 college students.

Lytton, H. "Follow-Up of An Experiment in Selection of Remedial Education," *British Journal of Educational Psychology*, 37 (February 1967) 1-9.

Reports results on several measures of reading achievement added together to form the combined criterion for 88 students 16.4 months after they had received special remedial instruction.

McDonald, Arthur S., Ed. "Research for the Classroom - Using Standardized Tests to Determine Reading Proficiency," *Journal of Reading*, 8 (October 1964) 58-61.

Cites 19 studies in a review of the research pertaining to the use of standardized measures to assess reading competency.

Smith, Donald E. P and Wood, Roger L. "Reading Improvement and College Grades: A Follow-Up," *Journal of Educational Psychology*, 46 (March 1955) 155-59.

Presents the results of an evaluative study of reading improvement at the college level which aimed to overcome criticisms inherent in previous studies of a similar type.

Section 2: Post-test Problems

Bliesmer, Emery P. "Evaluating Progress in Remedial Reading Programs," *Reading Teacher*, 15 (March 1962) 344-50.

Presents a comparison of three methods: (1) determining gains by before and after reading test scores, (2) comparing gains during remedial instruction with prior average gains, and (3) examining reductions in difference between achievement and potential.

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Bliesmer, Emery P. "Methods of Evaluating Progress of Retarded Readers in Remedial Reading Programs," *Yearbook of the National Council of Measurements Used in Education*, 15 (1958) 128-34.

Compares the results of three methods of evaluating progress of retarded readers in remedial reading programs in the case of two groups of pupils in grades 4 through 8.

Cosper, Russell and Kephart, Newell C. "Retention of Reading Skills," *Journal of Educational Research*, 49 (November 1955) 211-16.

Reports the results of a study to determine to what extent 38 college students, who had taken a 1-semester course in developmental reading, retained the progress made after a period of 14 months.

Karlin, Robert and Jolly, Hayden. "The Use of Alternate Forms of Standardized Reading Tests," *The Reading Teacher*, 19 (December 1965) 187-91, 196.

Reports the administering to 161 pupils in grades 4 to 8 appropriate forms of reading tests in the fall, and the same and alternate forms of both tests the following spring, to determine whether there are significant differences between the two tests or between their alternate forms.

McDonald, Arthur S., Ed. "Research for the Classroom - Reading Potential - Appraisal or Prediction," *Journal of Reading*, 8 (November 1964) 115-19.

Summarizes research that deals with the assessment of reading potential, including 31 reports.

McMillan, John W., Jr. "Reading Improvement in Business," *Exploring the Goals of College Reading Programs*, Oscar S. Causey, Ed. Yearbook of the Southwest Reading Conference for Colleges and Universities, 5 (1955) 82-84.

Reports the results of a reading improvement program among three groups of business men, totaling 55, and the percentage of improvement retained a year after the completion of the course.

Murphy, Harold D. and Davis, Frederick B. "A Note on the Measurement of Progress in Remedial Reading," *Peabody Journal of Education*, 27 (September 1949) 108-11.

Presents data secured from tenth- and eleventh-grade pupils which challenge the validity, because of the failure to correct for change, of the large gains reported frequently as a result of remedial training.

Rankin, Earl F., Jr. and Tracy, Robert J. "Residual Gain as a Measure of Individual Differences in Reading Improvement," *Journal of Reading*, 8 (March 1965) 224-33.

Multiple Criteria Use

Discusses statistical limitations and spurious significance of reading gains secured by computing the difference between pretest and post-test scores and advances a new measure, residual gain, to determine reading improvement.

Ray, Darrel D. "The Permanency of Gains Made in a College Reading Improvement Program," *Journal of Educational Research*, 59 (September 1965) 17-20.

Reports the administering of a standardized reading test to 65 college students before and after a 3-month reading improvement program, and the retesting after 3 months of 32 of the subjects and 33 after 6 months, to determine the retention of their gain from the reading program.

Ray, Darrel D. and Belden, Bernard B. "An Examination of Immediate Gains in a College Reading Improvement Program," *Journal of Reading*, 8 (January 1965) 201-07.

Compares pretest and post-test results on various reading measures of 177 college students who formed two groups each receiving 30 hours of reading instruction. Subjects represented various college levels and were viewed as a random sample since there were no restricted enrollment procedures in the reading improvement courses.

Ray, Darrel D. and Martin, Mavis D. "Gains in Reading Achievement," *Journal of Reading*, 10 (January 1967) 238-42.

Compares mean differences in pre-post-instructional reading achievement scores for 177 subjects who scored below or above the median on the preinstructional measure in a college reading program.

Scott, Carrie M. "Intelligence and Gain in Reading as Related to Gains in the Sub-Tests of the Stanford Achievement Test," *Journal of Educational Research*, 56 (May and June 1963) 494-96.

Gives a correlational comparison of gains in reading and those of the other subtests of the Stanford Achievement Test Battery, over a period of 19 months, using records of 193 pupils in grades 5 and 6.

Section 3: Other Problems

Balow, Bruce and Blomquist, Marlys. "Young Adults Ten to Fifteen Years after Severe Reading Disability," *Elementary School Journal*, 66 (October 1965) 44-48.

Presents followup data of 32 males, ages 20 to 26, who were diagnosed as severely disabled readers during their elementary school years.

Problems of Reading Growth Measurement

Beggs, Donald L. and Hieronymus, Albert N. "Uniformity of Growth in the Basic Skills Throughout the School Year and During the Summer," *Journal of Educational Measurement*, 5 (Summer 1968) 91-97.

Compares observed and expected median grade equivalents on a basic skills test battery in order to test the assumption of uniform rate of growth during the school year and growth over the summer.

Buerger, Theodore A. *Elementary School Pupils Who Received Remedial Reading Instruction: A Follow-Up Study of the Educational Progress and Attitudes of Remedial and Non-Remedial Groups*. 225 p. (Ed.D., Western Reserve University, 1966) *Dissertation Abstracts*, 27, No. 10, 3300-A. Order No. 67-4629, microfilm \$3.00, xerography \$10.15 from University Microfilms.

Determines the effects of remedial reading instruction on the long term (up to 5.6 years) post-remedial educational progress and attitudes of students.

Libaw, Frieda; Berres, Frances; and Coleman, James C. "A New Method for Evaluating the Effectiveness of Treatment of Learning Difficulties," *Journal of Educational Research*, 55 (August 1962) 582-84.

Devises a method to obtain more adequate evidence of improvement in learning than followup studies, control-experimental group comparisons, or test-retest techniques.

MacLatchy, Josephine H. "An Oral-Reading Test as an Appraisal of Progress," *Educational Research Bulletin*, 28 (December 7, 1949) 230-39.

Analyzes the achievement at two periods of different groups of pupils, as measured by Gray Oral Reading Test, to determine its value in appraising progress.

Rankin, Earl F., Jr. "A New Method of Measuring Reading Improvement," *Reading and Inquiry*, 10 (1965) 207-10.

Presents evidence showing that current methods are faulty and discusses a new technique for measurement.

Shearer, E. "The Long-Term Effects of Remedial Education," *Educational Research*, 9 (June 1967) 219-22.

Investigates the long-term effects of remedial education for 46 students, 22 of whom received further remedial help in their modern school and 24 who did not, and compares the two groups with children who had been recommended for remedial education but who had not received it.

Other Problems

Tanyzer, Harold Joseph. *The Relationship of Change in Reading Achievement to Change in Intelligence among Retarded Readers.* 114 p. (Ph.D., University of Connecticut, 1962) *Dissertation Abstracts*, 23, No. 5, 1612-1613. Order No. 62-4399, microfilm \$2.75, xerography \$5.60 from University Microfilms.

Uses case studies of 50 retarded readers of average intelligence or above to test the two hypotheses that the average gain per month in reading achievement will be significantly related to IQ change on the full scale Wechsler Intelligence Scale for Children and that the retest mean IQ score for the group will be significantly greater than the initial mean score.

Woodbury, Charles A. "The Identification of Underachieving Readers," *The Reading Teacher*, 16 (January 1963) 218-23.

Compares the relation of difference between reading comprehension age and mental age as a means of identifying underachievers in reading to identification based on use of a differential index.

Woodcock, Richard W. "An Experimental Prognostic Test for Remedial Readers," *Journal of Educational Psychology*, 49 (February 1958) 23-27.

Describes the nature, development, and evaluation of a test, composed entirely of pictures and non-letter symbols, for selecting remedial readers most likely to profit from special instruction in reading.

Part V

Studies and Discussions of School Reading-Testing Programs

Part V includes reports on total school reading testing programs. There are few reports of such extensive programs in the current literature, and almost no studies have compared the strengths and weaknesses of different testing programs. Despite the present lack of reports on this topic, the recent emphasis on evaluation and accountability will doubtless increase the research in this area during the next several years. Therefore, all available material is included as a guide to the work which has been and which should be done.

Balow, Bruce and Curtin, James. "Reading Comprehension Score as a Means of Establishing Homogeneous Classes," *The Reading Teacher*, 19 (December 1965) 169-73.

Reports the classification of the test files of 150 bright third-grade pupils into one heterogeneous and three homogeneous groups on the basis of their reading comprehension scores and shows the comparisons between their scores on other basic skills.

Brim, Orville G., et al. *The Use of Standardized Tests in American Secondary Schools and Their Impact on Students, Teachers, and Administrators*. 489 p. (CRP-2334, Pittsburgh University, Pittsburgh, 1964) ED 003 023, microfiche \$2.00, hard copy \$24.45 from EDRS.

Surveys the attitudes of secondary school students, teachers, and counselors toward standardized tests.

Greene, James E. and Woodruff, Wilda. "A Testing Program for Promoting Improved Supervision," *Educational Administration and Supervision*, 35 (October 1949) 346-53.

Bases conclusions on the progress attained on the Iowa Basic Skills Test during a semester through supervisory activities focused on overcoming deficiencies revealed in the initial test.

Pringle, M. L. Kellmer and Neale, M. D. "A Note on the Use of the Schonell and Gates Reading Tests in the First Year of the Junior School," *British Journal of Educational Psychology*, 27 (June 1957) 135-41.

Compares the scores made on the Schonell Graded Reading Tests (Vocabulary and Silent Reading Test A) and the Gates Primary Reading Tests (Word Recognition and Paragraph Reading) by 90 pupils in each of two junior schools to determine the comparability of their performance on the two tests.

Townsend, Agatha. "What Research Says to the Reading Teacher: Evaluation and Testing for Reading Programs," *The Reading Teacher*, 18 (February 1965) 431-37.

Cites 70 references in a review of the literature on reading evaluation and testing and includes a list of 10 psychological and diagnostic tests.

Part VI

Experimental and Unique Approaches to Reading Ability Measurement

Part VI concludes the bibliography with reports on experimental or unique approaches to measuring reading achievement. This also is a rather small section because very little has been attempted in terms of innovative reading behavior assessment.

Alexander, Henry William. *An Investigation of the Cloze Procedure as a Measuring Device Designed to Identify the Independent, Instruction, and Frustration Reading Levels of Pupils in the Intermediate Grades*. 253 p. (Ed.D., University of Illinois, 1968) *Dissertation Abstracts*, 29, No. 12, 4314-A. Order No. 69-10,625, microfilm \$3.30, xerography \$11.50 from University Microfilms.

Makes use of 365 students in three intermediate grade levels to probe cloze procedures in an effort to determine whether these procedures provide information regarding independent, instructional, and frustration reading levels as does the properly constructed and administered informal reading inventory.

Bloomer, Richard H., et al. *Nonvert Reinforced Cloze Procedure*. 152 p. (CRP-2245, University of Connecticut, Storrs, 1966) ED 010 270, microfiche \$0.75, hard copy \$7.70 from EDRS.

Measures the effects of training in a series of cloze procedure exercises upon reading comprehension.

Bormuth, John R. "Cloze Test Readability: Criterion Reference Scores," *Journal of Educational Measurement*, 5 (Fall 1968) 189-96.

Determines what cloze scores on oral reading test paragraphs are comparable to the criterion scores commonly used in readability measurement and analyzes the extent of correlation between passage difficulties by cloze tests and by comprehension and word recognition tests given to 120 fourth, fifth, and sixth graders.

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

Designs five cloze tests on each of 20 passages to ascertain whether different forms of a cloze test developed from the same passage are unlike in difficulty and administers a different form to each of five groups of 139 students in grades 4 through 8.

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.

Experimental and Unique Approaches to Reading Ability Measurement

Reports a study which dealt (1) generally with one aspect of the question of why one language is easy to comprehend while another is not and (2) specifically with the problem of increasing the precision of readability prediction.

Bormuth, John R. "Validities of Grammatical and Semantic Classifications of Cloze Test Scores," *Reading and Inquiry*, 10 (n.m. 1965) 283-85.

Reports the findings of a study in which cloze test responses were classified into seven categories.

Bormuth, John R. and MacDonald, O. L. "Cloze Tests as a Measure of Ability to Detect Literary Style," *Reading and Inquiry*, J.A. Figurel, Ed. International Reading Association Conference Proceedings, 10 (1965) 287-90.

Reports coefficients of correlation between the scores obtained from 126 female college students on cloze tests administered before and after they read the book from which the cloze passages were selected, and their scores on a test of the ability to detect the author's literary style. Similar procedures were repeated with 109 subjects using tests over another author's works.

Chase, Clinton I. "Concept Formation as a Basis for Measuring Developmental Reading," *The Elementary School Journal*, 69 (January 1969) 210-14.

Describes the development and the administration of a test (to a total of 70 fourth-grade and 65 sixth-grade children) allowing each pupil an option of responding to a passage at an abstract or concrete level of concept attainment.

Cranney, Adelbert Garr, Jr. *A Comparison of a Free-Response and Multiple-Choice Cloze Reading Test*, 169 p. (Ph.D., University of Minnesota, 1968) *Dissertation Abstracts*, 29, No. 3, 811-A. Order No. 68-12,251, microfilm \$3.00, xerography \$7.80 from University Microfilms.

Compares the validity and reliability of two types of cloze tests utilized as measures of reading comprehension.

Greene, Frank Pierrepoint. *A Modified Cloze Procedure for Assessing Adult Reading Comprehension*. 130 p. (Ph.D., The University of Michigan, 1964) *Dissertation Abstracts*, 25, No. 10, 5734. Order No. 65-5308, microfilm \$2.75, xerography \$5.20 from University Microfilms.

Reports on an investigation which (1) measured the effect on concurrent validity of modifying the standard cloze procedure and (2) attempted to demonstrate two components of reading comprehension as measured by the cloze technique by testing 128 University of Michigan graduate and undergraduate students.

Experimental and Unique Approaches

Greene, Frank P. "Modification of the Cloze Procedure and Changes in Reading Test Performances," *Journal of Educational Measurement*, 2 (December 1965) 213-17.

Reports the effects on reading comprehension of a modification of standard cloze procedure by administering varying forms of a 600-word passage mutilated by standard cloze procedures or by deletion of an equal number of selected content of function words to college student groups, roughly equated for reading ability.

Hafner, Lawrence E. "Relationships of Various Measures to the Cloze," *New Concepts in College-Adult Reading*, Eric L. Thurston and Lawrence E. Hafner, Eds. Yearbook of the National Reading Conference, 13 (1964) 135-45.

Correlates performances of 32 college students on a cloze measure (prepared by the investigator) and scores on a variety of standardized intelligence and achievement tests. Multiple regression equation to predict college grade point average was also computed.

Harootunian, Berj. "A Note on Reading and Closure," *The Reading Teacher*, 14 (May 1961) 343-44.

Presents relationships of three Thurstone closure tests to reading scores at grades 7 and 8.

Henderson, Edmund H. "A Study of Individually Formulated Purposes for Reading," *Journal of Educational Research*, 58 (July and August 1965) 438-41.

Reports the relationship between reading achievement, purpose setting, purpose attainment, and comprehension of 24 good and 24 poor fifth-grade readers who read, individually, four stories with different methods of purpose setting. Rating scales were developed to measure purpose setting achievement and purpose attainment.

Keogh, Barbara K. "The Bender Gestalt as a Predictive and Diagnostic Test of Reading Performance," *Journal of Consulting Psychology*, 29 (February 1965) 83-84.

Evaluates the use of the Bender Test in predicting and diagnosing reading performance in the third grade by retesting 137 children, previously given the Bender Gestalt Test in kindergarten, in the third grade with the Bender Test as well as with other measures of mental maturity and reading achievement.

Kirby, Clara Low Laughlin. *A Comparison of Scores Obtained on Standardized Oral and Silent Reading Tests and a Cloze Test*. 125 p. (Ed.D., Ball State University, 1967) *Dissertation Abstracts*, 28, No. 11, 4512-A. Order No. 68-3243, microfilm \$3.00, xerography \$6.00 from University Microfilms.

Experimental and Unique Approaches to Reading Ability Measurement

Seeks to determine any relationship between the reading levels of elementary school children as indicated by their scores on a cloze test and on selected oral and silent standardized reading tests.

Kirchoff, Leo Henry. *A Study Utilizing the Cloze Test Procedure to Determine Reading Levels of First Grade Children Who Have Been Taught Beginning Reading by Four Different Approaches*. 213 p. (Ed.D., University of Kansas, 1968) *Dissertation Abstracts*, 29, No. 10, 3329-A. Order No. 68-17,408, microfilm \$3.00, xerography \$9.70 from University Microfilms.

Tests 120 first-grade children, who had been taught reading by four different approaches, using a cloze test, an informal reading inventory, a silent reading test, and an intelligence test to seek a significant relationship between scores on a cloze test and those on an informal reading inventory.

Lachman, Roy and Tuttle, Abigail V. "Approximations to English (AE) and Short-Term Memory, Construction or Storage?" *Journal of Experimental Psychology*, 70 (October 1965) 386-93.

Reports three experiments with 120, 24, and 240 undergraduate students who were given a recognition test and/or a free-recall test after they had been exposed to verbal materials at high and low levels of approximation to English under different experimental conditions. Comparisons were made between recognition scores and free-recall scores to localize facilitation of stimulus reception, storage, or retrieval.

MacGinitie, Walter H. "Contextual Constraint in English Prose Paragraphs," *Journal of Psychology*, 51 (January 1961) 121-30.

Reports a study of the ability of 600 college students to restore words periodically but with different patterns of omission throughout two prose paragraphs which differed considerably in content, style, and difficulty.

Manis, Melvin and Dawes, Robyn M. "Cloze Score as a Function of Attitude," *Psychological Reports*, 9 (August 1961) 79-84.

Makes use of two 400-word passages, one pro- and the other anti-capital punishment, in testing two groups of college students, who were pretested to determine attitudes toward the topic then asked to fill in the fourth- or eighth-omitted words in the passages.

Merritt, J. E. "Assessment of Reading Ability: A New Range of Diagnostic Tests?" *Reading*, 2 (June 1968) 8-16.

Measures differences in oral reading time, error frequency, and number of omissions of 38 British pupils of junior school age levels by administering four 111-word tests which varied in word sequence approximation to English.

Experimental and Unique Approaches

Potter, Thomas C. *A Taxonomy of Cloze Research, Part I: Readability and Reading Comprehension.* 52 p. (OEC-4-7-062865-3073, Southwest Regional Educational Lab, Inglewood, 1968) ED 035 514, microfiche \$0.25, hard copy \$2.65 from EDRS.

Presents (1) general information about the cloze technique and (2) summaries of experiments with adults and children in which the technique was used.

Potter, Thomas Clifford. *Reading Skills in Young Children: Closure and Comprehension.* 190 p. (Ed.D., University of California, Los Angeles, 1968) *Dissertation Abstracts*, 29, No. 4, 1051-A. Order No. 68-14,556, microfilm \$3.00, xerography \$8.60 from University Microfilms.

Develops a procedure for the evaluation of reading comprehension in sixth-grade pupils and then studies the relationship between comprehension scores derived from this procedure and scores obtained from a standardized test of reading comprehension.

Rankin, Earl F., Jr. "The Cloze Procedure: Its Validity and Utility," *Starting and Improving College Reading Programs.* Yearbook of the National Reading Conference, 8 (1959) 131-44.

Summarizes evidence concerning the empirical validity of the procedure as a technique for measuring readability, intelligence, prereading knowledge, and comprehension.

Ransom, Peggy Elaine Hitchcock. *A Study to Determine Reading Levels of Elementary School Children by Cloze Testing.* 133 p. (Ed.D., Ball State University, 1965) *Dissertation Abstracts*, 26, No. 7, 3705-06. Order No. 65-13,038, microfilm \$3.00, xerography \$6.40 from University Microfilms.

Studies the results of a cloze test and an informal reading inventory administered to 178 students in grades 1 through 6 to determine whether a significant relationship exists between the scores on both tests.

Sochor, E. Elona. "Developments in Reading Abilities Evaluation," *New Frontiers in Reading.* International Reading Association Conference Proceedings, 5 (1960) 108-12.

Discusses the statistical treatment and the testing for reliability of three tests in content areas: the Intermediate Reading Test, Social Studies; the Intermediate Test, Science; and the Diagnostic Reading Inventory in Science.

Yeager, John L. Measures of Learning Rates for Elementary School Students in Mathematics and Reading under a Program of Individually Prescribed Instruction.

Experimental and Unique Approaches to Reading Ability Measurement

92 p. (BR-5-0253-THESIS-1, University of Pittsburgh, Pittsburgh, 1966) ED 010 209, microfiche \$0.50, hard copy \$4.70 from EDRS.

Studies the consistency of three measures of learning rate in mathematics and reading by assigning students of grades 1 through 6 to a specific level in a content area based on subject mastery.

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