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Reading  
*for the Middle Grades*

AN ANNOTATED BIBLIOGRAPHY

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## Foreword

**R**ESearch in Reading for the Middle Grades represents part of a series of bulletins based on the published and unpublished studies in reading from 1955 through 1960. Other areas covered in the series deal with the primary grades, the junior high and high school, the college and adult level, and with diagnostic and remedial reading.

The need for such a series of publications has been brought into focus by the activities of the National Conference on Research in English and the International Reading Association. Both organizations have pointed out the vast amount of research in reading which is being done each year by master's and doctoral candidates. The bulk of these studies simply lies fallow in university and college libraries, most of them never reaching the attention of research workers and reading teachers across the country. Even the published studies seldom provide more than a glimpse or indication of trends, for as most of the researchers readily acknowledge they present more questions than they answer.

Material for this series of bulletins was gathered by means of a questionnaire which was sent to professors of reading and directors of research in reading at colleges and universities, to reading clinics, to testing and research bureaus, to State departments of education, and to school systems in cities of over 100,000 population throughout the United States. Grateful acknowledgement is extended for the cooperation of the personnel in each of these agencies and to Arno Jewett, who initiated the research project and collected the questionnaire data.

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## Introduction

**T**HIS BULLETIN presents reading research studies in the upper elementary grades during the period from 1955 through 1960. It represents an attempt to bring together the unpublished as well as published studies for that period. This compilation was undertaken by the U.S. Office of Education in response to requests from reading and language arts specialists, particularly members of the National Conference on Research in English.

While it was hoped that the resulting summary and bibliography might be complete and exhaustive in its coverage, it should be noted that response to inquiries and requests sent by the Office of Education to colleges and universities, chief State school officers, local school systems and others has been less than 100 percent, despite followup letters. The usefulness and value of this bibliography is, therefore, to some extent limited. Even so, the large number of studies reported would suggest that this compilation is at least representative of investigations conducted in the broad field of reading during the 6 years covered by this report.

Another limitation of this report lies in the fact that only a comparatively few studies fall within each of the many areas covered by reading research. This, plus the fact that 6 years is a relatively short time, makes it difficult to describe broad trends in reading. For this reason, the reader is referred to the Traxler summaries found in Educational Records Bulletin No. 32, *Ten Years of Research in Reading*; Bulletin No. 46, *Another Five Years of Research in Reading*; Bulletin No. 64, *Eight More Years of Research in Reading*; and Bulletin No. 75, *Research in Reading During Another Four Years*. The reader should note, however, that the research areas presented here do not coincide perfectly with the categories employed by Traxler. Even so, enough similarity exists that a comparison of trends may be made.

In most instances the author of this bulletin has not attempted to evaluate the relative worth of a particular study, leaving it to the reader to determine the significance of the findings and conclusions in relation to his own purpose. It must be observed, how-

ever, that there is a definite need for long-range research studies and for replications of the more significant investigations.

A total of 238 studies is annotated in this bulletin. These are grouped under 29 categories, all of which are classified under five broad headings:

1. Under *causative factors and testing* will be found readiness, individual differences, intelligence, bilingualism, vision and hearing, testing, diagnosis, and other factors.
2. Factors relating primarily to pupil attitudes and interests have been grouped within the broad heading, *psychological factors*. The various subheadings include motivation, interests, pupil attitudes, and personal adjustment.
3. *Reading skills* is the third broad category. Under this heading the subtopics are listening skills, comprehension, oral reading, word recognition and analysis, phonics, library usage and study skills, and vocabulary.
4. *Educational media*, other than printed materials, accounted for only four reported studies in the middle grades, but their rising importance has caused the author to provide a separate category for mechanical devices, television, readability and reading materials.
5. Under *educational practices* the reader will find grouping, individualized reading, comparative studies, subject fields, spelling, and teacher preparation.



# Outline of Reading Research in the Middle Grades—1955-60

**T**HE FOLLOWING outline is presented in order to give the reader a quick overview of the annotated references which follow.

## **Causative Factors and Testing**

Not all causative factors in reading performance are included in this section, but most reading authorities would agree that the following factors have some bearing on reading achievement. Because of their distinct relationship with causative factors, two other topics—tests and diagnosis—are also presented here.

**Readiness.**—Although most reading authorities acknowledge the need for reading readiness at all levels, all of the studies reported in this area were concerned with later reading achievement in relation to certain readiness factors at the time of beginning reading instruction.

**Individual Differences.**—Two studies were considered of sufficient importance to justify this separate area. Both involved longitudinal growth records and could not reasonably be combined with other studies in some other classification.

**Intelligence.**—Some of the more sophisticated studies reported were in this area. Three of the 17 studies dealing with reading and intelligence were concerned with patterns established by good and poor readers on the Wechsler Intelligence Scale for Children.

**Bilingualism.**—Bilingualism has become an increasingly important problem in the teaching of reading, and enough studies were reported to justify a special section for this topic. Although all of the studies that were reported came from California and New Mexico, bilingualism is acknowledged as a particular problem in Hawaii and in New York City.

**Vision and Hearing.**—Only three studies were concerned with auditory factors, and one with visual factors in reading in the



middle grades. This apparent lack of interest in vision and hearing is somewhat surprising in view of the ease with which objective measures of these factors may be obtained. Perhaps it may be explained by the fact that vision and hearing receive major emphasis as readiness factors and account for a great deal of research at the beginning reading level. As would be expected in light of earlier studies of eye movements, this area came in for only fleeting consideration by investigators in the elementary grades. For the 6-year period covered by this bulletin, only one study was reported.

**Testing.**—Three of the five studies reported in this area concerned the ability of teachers to evaluate the reading abilities of their pupils. One dealt with capacity versus rate as factors in reading tests, and the fifth report was concerned with test validity.

**Diagnosis.**—Since only a part of the studies in this area were conducted outside the regular classroom, diagnosis is being included in this volume, although a separate bulletin is being prepared on "Remedial Reading." Diagnosis in reading is annually gaining a position of increasing importance in American schools. Teachers and administrators are making greater use of test results in planning their instructional programs.

**Other Factors.**—Studies included in this section include those relating to promotional policy, teacher and parent attitudes, socio-economic factors, and sibling achievement.

### Psychological Factors

The four topics grouped under this heading might very well fit under *causative factors*. Personal adjustment and reading interests accounted for the preponderance of research studies reported in this area.

**Motivation.**—The number of studies in this area can scarcely be considered an indication of its relative importance, since only two studies were reported. The difficulty of obtaining valid measures of motivation is doubtless a factor in the dearth of investigations.

**Interests.**—Interest inventories and questionnaires were the sole means of collecting information in all but one of the studies reported in this area. The study that differed was concerned with the value of free reading.

**Pupil Attitudes.**—Only three studies were reported in this area. Two of them involved new-type tests constructed by the investigator; one, a questionnaire.

**Personal Adjustment.**—This factor accounted for a large number of investigations. Some of the 16 studies reported were based on pupil inventories, personality tests, sentence completion tests, and sociograms. Others were concerned more specifically with anxiety and threat in relation to reading performance.

## **Reading Skills**

Skills which the mature reader must master are presented in this area. Because of its recognized importance in reading independence, phonics has been made a separate topic rather than being grouped with the other word attack skills.

**Listening Skills.**—The late fifties witnessed increasing recognition of the importance of listening skills and their development in the elementary school, although only three of the reported studies were in this area. Teaching children to be effective listeners is now regarded as an integral part of the total language arts program and essential to good reading instruction.

**Comprehension.**—Reading comprehension and related factors accounted for a large number of investigations. Some of these studies were concerned with elaborative thinking, some with preparatory questions, and others with the improvement of listening skills.

**Oral Reading.**—Included in this area are choral reading, plays, and poetry. One study concerned an analysis of oral reading errors. Another analyzed the responses of retarded, average, and advanced readers to the same oral reading materials.

**Word Recognition and Analysis.**—The importance of word attack skills, even beyond the primary grades, is reflected in the number of studies dealing with this area. Some of the researchers were concerned with comparisons of an inductive versus a deductive approach to word attack, while others dealt with pupil knowledge and use of word-analysis skills.

**Phonics.**—Because of the importance of phonics in reading and the interest manifested by researchers, this topic is presented as a separate area rather than being grouped with other aspects of word attack. Two of the studies concerned the views of teachers toward phonics and their knowledge of phonic understandings.

**Library Usage and Study Skills.**—All four studies reported in this area were concerned either directly or indirectly with the effect of library training upon pupil achievement. One of them was much more comprehensive in scope and dealt also with the role of elementary school libraries.



**Vocabulary.**—Another popular area from the standpoint of reading research has been vocabulary. Most of the studies dealt with word counts and comparisons with the Thorndike or some other word list. Only three were concerned with vocabulary improvement and methods of instruction.

### **Educational Media**

New educational media are attracting greater attention than ever before. Despite this widening interest, very little of the research reported for the years 1955–60 was related to these media. The preponderance of studies in this area were concerned with printed materials and readability. Only four studies were on mechanical devices and television. Even these did not relate to educational TV, but to children's viewing habits.

**Mechanical Devices.**—Only two of the research studies reported dealt with the use of mechanical devices in the upper elementary grades. Both were limited in scope, although one of them continued for 2 years.

**Television.**—Only two studies dealing with televiewing and reading achievement of middle-grade pupils were reported. None concerned uses of educational TV. The decline in studies concerned with pupils' televiewing habits may be the result of the comparatively insignificant results of numerous, earlier studies.

**Materials.**—A diversity of topics and research approaches appeared in this area. The reported studies included investigations of the following topics: Provisions for critical thinking in basic materials, skills covered in reading workbooks, a comparison of basal readers on selected characteristics, the usefulness of basal materials in working with superior readers, and the relative value of high-interest, low-vocabulary materials for retarded readers.

**Readability.**—Interest in this area continued to run rather high. All of the nine reported studies made use of one or more of the currently popular readability formulas. None of the investigators appeared to be concerned about inadequacies and limitations of the formulas as true measures of reading difficulty.

### **Educational Practices**

Not all of the studies grouped within this area are related directly to methods of teaching. Because the preparation and training of teachers are so vital to good instruction, teacher preparation is also included here.

**Grouping.**—Teachers are still deeply interested in discovering better ways of handling individual differences through classroom management and instructional techniques. Various approaches to grouping, with particular attention to flexibility in grouping, accounted for most of the studies in this area.

**Individualized Reading.**—As would be anticipated, increased interest in this area was reflected by the number and nature of the studies reported. Conclusions remained tentative, but most of the investigators felt that their findings justified continued experimentation with the individualized approach to reading.

**Comparative Studies.**—While only a few of the comparative studies were carefully controlled and very few led to significant implications for teaching reading, some of them involved new and interesting approaches to reading instruction. They merit replication under more refined experimental conditions, and they warrant careful review by the reading researcher and teacher.

**Subject Fields.**—Reading in the content areas accounted for a comparatively large share of the reported studies. The various content areas included arithmetic, social studies, history, geography, and science.

**Spelling.**—A majority of the studies in this area involved statistical correlations between spelling and reading ability. One investigator compared methods of teaching spelling, and two sought to determine the extent to which spelling words are used by children in their own writing.

**Teacher Preparation.**—Several investigations were concerned with teacher preparation. Some of these studies involved surveys to determine the opinions of teachers and administrators, the various State requirements for reading specialists, and the extent of special programs in one State.

# Summary of Research in Reading, 1955-60

## Causative Factors

**Readiness.**—As in earlier investigations, girls were found to read sooner than boys, with fewer extreme delays (1). The picture remains confused as to the significance of chronological age. Three studies (2, 4, 8) lent support to the notion that actual age is of comparatively little importance as a determinant of readiness for beginning reading, while two other investigators (5, 6) found that older children enjoyed a distinct advantage over younger children in later reading success. The inconclusive nature of studies dealing with readiness suggests the need for complete overhauling of present readiness testing, especially in the light of current tendencies and the comparative success of introducing beginning reading at even younger ages.

**Individual Differences.**—Two investigations (9, 10) demonstrated again the tremendous range of individual differences among children. Differences tend to increase with chronological age, both within and between individuals. These studies point to a need for better adaptation of education to the needs and interests of children rather than assuming that it is either possible or desirable to change these differences or to teach as though they did not exist.

**Intelligence.**—General intelligence was again found to correlate highly with reading achievement, although at least one study (16) indicated that many children high in mental ability scored no higher than those of low mentality on "the background factors that make for success in reading." Two studies (14, 15) tended to corroborate earlier findings and the general opinion that verbal intelligence is more closely related to reading ability than is nonverbal ability. One investigation (23) further demonstrated through the oral presentation of two IQ tests the extent to which intelligence test scores are influenced by reading ability. Another study (22) found evidence to support the idea of a "fourth grade hump" which may accentuate the need for more and better read-



ing instruction beyond grade three. Three investigations (11, 13, 20) were concerned with patterns made by good and poor readers on the Wechsler Intelligence Scale for Children. Although conflicting patterns emerged, which would suggest a need for further, more definitive research, all three studies showed poor readers to rate low on the Coding and Arithmetic subtests.

**Bilingualism.**—Studies involving bilingualism were for the most part conducted in Southwestern United States, and they were concerned largely with possible harmful effects that bilingualism might have on reading achievement. Monolinguals were found to enjoy a distinct advantage over bilinguals in these studies, which disclosed a particular need for helping Indian and Spanish-American children in their understanding of English idioms. Mean scores on reading tests were highly correlated with the amount of English spoken in the home (27).

**Vision and Hearing.**—One study concerning vision (33) disclosed that silent reading is primarily word-by-word in grade two. Even without special training, the length of the fixation pause in silent reading was found to reduce sharply between the second and sixth grades. Another study (34) points toward a significant difference between good and poor readers in their auditory perception.

**Testing.**—Conflicting evidence appeared with respect to teachers' ability to judge the reading proficiency of their pupils. Three studies (36, 39, 41) found teacher-judgment of reading ability invalid, while one investigator (37) concluded that test results and teachers' ratings corresponded closely. Two investigations (38, 40) dealt with the need for better reading tests, one of them (38) indicating that shorter, timed tests may be just as valid as longer tests which are more difficult to administer.

**Diagnosis.**—Several studies (44, 46, 49) showed the need for continuous diagnosis and earlier introduction of remedial instruction, while one (47) disclosed the importance of neurological testing for severely retarded readers. Another investigator (48) found the Rosenzweig Picture-Frustration Study useful in placing severely retarded readers in five major personality groups, but raised some questions about the test's validity.

**Other Factors.**—The factors included here were too diverse to be grouped under other headings, a situation which has made it difficult to ascertain any recognizable trends among them. One study (54) was able to reveal a direct relationship between socioeconomic level and achievement in reading and arithmetic. Another (55) demonstrated that a physically measurable emo-

tional reaction occurs during the reading act on the part of both good and poor readers. Another investigator (58) found that reading comprehension and vocabulary were positively correlated at .91, but that reading rate and perception had a correlation of only .50.

### Psychological Factors

**Motivation.**—The two studies in this area were too inconclusive to suggest to any observable trends.

**Interests.**—Six investigations (64, 67, 69, 73, 74, 75) dealt with sex differences in reading. As in previous studies, girls were found to read more than boys. Sex seemed more important in determining the number of books read in summer than either intelligence or type of school. Boys were found to hit their peak year in reading at 10; girls, at 12 and 13. Girls were found to be more interested in social-type comic books; boys, in aggressive type. Both boys and girls preferred newer books, dealing with modern activities. The six categories most preferred by boys were outdoor life, explorations and expeditions, sports and games, science fiction, sea adventure, and phantasy. The amount of comic-book reading was found in one study (65) to have a high correlation with the use of library books, suggesting that children who read the most are avid comic-book readers. Three studies (68, 70, 71) were concerned with methods of stimulating an interest in reading. A free-reading period during the school day was found to be a useful approach, as were picture displays and library-centered activities. One study (66) reported a need for more books on the latest scientific experiments and additional books on minority groups. One investigator (72) concluded that socioeconomic class is a more important factor than either age, reading ability, IQ, or sex in determining reading interests.

**Pupil Attitudes.**—One investigator (76), who constructed a reading concept test, reported a low, positive correlation between a pupil's "concept of good reading" and his actual reading achievement. Another (77) was able to isolate seven factors which he reported to be related to critical reading ability. A third (78) reported that children responded enthusiastically to an open-ended story to be completed by the child and used as a diagnostic tool.

**Personal Adjustment.**—The picture with reference to personal adjustment and reading achievement remains a confused one. So much conflicting evidence has been reported that the student or writer can probably find support for almost any position, if he



looks long enough. Five studies (80, 82, 84, 85, 94) revealed little or no relationship between personal adjustment and reading achievement, while nine (79, 81, 83, 87, 88, 89, 90, 91, 92) reported that the two factors were found to be related in varying degrees. Another study (86) found that the majority of clinics lack personnel for diagnosing and treating adjustment problems. One study (90) disclosed a difference in total adjustment in favor of good readers, but found the "patterns of adjustment" to be the same as for poor readers. Another (91) found that anxiety level is likely to make a difference in reading achievement when intelligence is a factor, also, when both sex and intelligence are factors. Another study (93) gave a further clue to the difficulty of relying upon written tests as measures of personality adjustment. High achievers tended to rate themselves as well adjusted, regardless of the method of administration.

### **Reading Skills**

**Listening Skills.**—Three investigators collaborated in a joint study (95) at Boston University, which confirmed the need for more sensitive instruments for measuring imagery and better controls in presenting listening material. Two studies (96, 97) found that listening ability could be improved significantly through the use of numerous teaching methods.

**Comprehension.**—Eight studies (99, 100, 101, 103, 104, 106, 109, 112) dealt with factors affecting recall. Preparatory questions, factual study guides, and practice in predicting outcomes were found to exert a favorable influence on recall. Multiple-choice items were found to be "three times easier" than unaided recall, although unaided-recall performance correlated more closely with classroom achievement. Both oral and silent-oral reading were found significantly superior to silent reading alone at second-grade level, while the silent-oral approach was significantly superior to the other two at third-grade level. Another investigator (111) concluded that reading speed can be increased for sixth graders without any loss in comprehension. Two studies (108, 110) lent further evidence in support of the thesis that there are specific reading skills apart from general reading ability. Another study (105) found listening comprehension superior to reading comprehension for both fourth- and sixth-grade pupils. One investigation (98) showed good readers to be superior in their ability to perceive abstract stimuli, although poor readers were at least equal in the perception of concrete stimuli. Critical thinking was found by one

investigator (102) to relate much higher with reading ability than did elaborative thinking.

**Oral Reading.**—Two studies (114, 116) were concerned with plays suitable for oral reading. One showed play reading to be preferred to oral reading of a story by over 71 percent of the pupils in grades four and five, but the other showed that interest in reading plays diminished steadily from grade four to grades five and six. Another (119) found the selection of poems suitable for children's interests much more important than the method of presentation. Two studies (115, 118) gave further evidence in favor of choral reading in the classroom.

**Word Recognition and Analysis.**—Nine studies (120, 121, 122, 123, 125, 127, 128, 129, 131) were concerned with the most effective methods of teaching word-attack skills. One study showed that both inductive and deductive methods have value in teaching word-attack skills. All of the studies gave some support to the value of direct instruction. Two studies (126, 130) dealt with an analysis of errors made by children in word recognition; most errors were on medial sounds rather than word beginnings and endings.

**Phonics.**—One investigator (133), analyzing 198 reports on phonics appearing in the literature through 1957, determined that 101 of them were original phonics studies; he concluded that few of them offer irrefutable, conclusive evidence. One study (134) found a high positive relationship between silent reading ability and the ability to synthesize the phonic elements of words presented orally. Another (136) gave further evidence of the value of special instruction in phonetic and structural analysis. Two studies (132, 135) were concerned with teacher views and teacher competencies. Most teachers apparently teach phonic skills and believe in their value, but many are lacking in their knowledge of phonics generalizations.

**Library Usage and Study Skills.**—One investigator (137) found through a comprehensive study that pupil achievement was higher in schools with libraries and that the amount of reading done by children was directly related to the nature of the library provision. Training in library usage (138) tended to increase ability to read for appreciation and retention. Another study (139) revealed that a planned reading program for sixth graders using the public library resulted in outstanding gains in vocabulary, comprehension and reading speed.

**Vocabulary.**—Six studies (141, 142, 143, 145, 146, 151) were concerned with word lists and children's knowledge of vocabulary.



Words common to each grade level were found to decrease as grade levels went higher. Vocabulary load in a fourth-grade geography book was found to be "relatively heavy for the average fourth grader." There seems to be a lack of agreement between words used most frequently in the writing and reading of fourth graders. Three studies (147, 148, 149) were concerned with vocabulary development. These studies lent definite support to earlier findings in favor of direct teaching of vocabulary.

### **Educational Media**

**Mechanical Devices.**—The small number of experiments with reading machines makes it difficult to generalize concerning mechanical devices as aids to reading improvement in the upper elementary grades. The two reports submitted, however, (152, 153) indicate that they are of doubtful value at this level.

**Television.**—The two studies relating to television were not actually concerned with it as an educational medium. One of the studies (154) disclosed a high positive correlation between the amount of televiewing and reading ability among boys, but not girls. The other (155) found fifth- and sixth-grade pupils to be averaging 2 hours a day in watching TV, but found no relationship between televiewing and reading ability.

**Materials.**—Six studies (157, 159, 162, 163, 164, 166) were concerned with the quality and usefulness of basal series in the reading program. Although readability has been improved through the use of shorter sentences and although basal readers seem to be just as useful as high-interest, low-vocabulary materials for some low achievers, a number of negative findings appear in these studies. Some important thinking skills were reported to be neglected or at best treated lightly, while provisions are not being made in the average classroom for comprehending and using language in critical thinking. Basal readers were also criticized for inaccuracies about other cultures with respect to factual information, realism, and time concepts. There is also some evidence of great variation and a wide range of inconsistencies within the various series.

Rewriting adult materials about Canada to a sixth-grade level was the concern of two investigators (158, 160), who concluded that more materials of this nature would be useful. Another investigator (156) was also concerned with writing special materials for retarded readers and developed a set of criteria for writing such stories. The value of providing materials on multiple levels



was shown in another experiment (161), which clearly demonstrated the superiority of such an approach over a single level of materials for the same classroom.

**Readability.**—Considerable variation in the readability ratings provided by various formulas was evident from the reports in this area. One investigator (175) compared 10 social studies texts designed for fifth-grade use, finding them on a sixth- and seventh-grade level according to the Flesch formula, but on a fifth- and sixth-grade level according to the Dale-Chall. The same formulas resulted in a wide divergence of ratings for 30 supplementary books used for social studies in the intermediate grades (169). Another study (168), which compared 52 adaptations of 18 original classics by means of the Yoakam and Flesch formulas, revealed that the Yoakam formula rated difficult books as more difficult and easy books as easier than did the Flesch scale. The same investigation disclosed an insignificant correlation between the reading-difficulty level of an original and its adaptation; relative length of an adaptation was closely related to the degree of plot retention, suggesting that too much condensation may be at the expense of plot.

Wage earners generally may be expected to read popular magazines which are written on a level of difficulty beyond the highest grade in school completed by the reader, according to one study (167). This was particularly true of magazines in the popular sports and fiction classification. Such evidence tends to refute, at least on the basis of this investigation, commonly accepted ideas about a regression in reading ability after leaving school. Further studies along this line would be desirable since final conclusions cannot be made on the basis of presently available data.

Other studies in readability were concerned with library books (172), science texts (173), history and geography texts (171), and arithmetic texts. It is apparent that more appropriate reading lists are needed for grades four and five. Science books seem to vary too much in difficulty within the same book, and those designed for fourth-grade use are too difficult for fourth graders. Both fifth- and sixth-grade social studies texts still seem to contain excessive vocabulary loads and difficult concepts. It is also apparent that arithmetic textbook writers should introduce and teach technical words more thoroughly.

### **Educational Practices**

**Grouping.**—Almost without exception, all of the methods of grouping tested in the various reported experiments resulted in

significant gains for the experimental groups. It seemed to matter little whether the research sought to evaluate homogeneous grouping, variations of the Joplin Plan, reading block programs, pupil pairs, or differentiated instruction. Although in one study the teachers recognized the influence of the "Hawthorne effect," none of the investigators took specific steps to eliminate or reduce it. Six investigations (176, 181, 182, 183, 186, 187) were concerned with "cross-class" grouping or variations of the Joplin Plan. Conclusions from these studies unanimously favored such an approach to reading instruction, although the results were not uniformly impressive. Three investigators (178, 184, 188) sought to determine the value of homogeneous grouping within the same class. Only one of these (184) involved an entire elementary school, but all of them concluded in favor of homogeneous grouping. Two studies (179, 191) involved surveys of teacher opinions concerning grouping. These showed teachers to favor a flexible approach to grouping.

**Individualized Reading.**—Many teachers are "experimenting" with individualized reading, and interest in this topic still runs high, but only a few controlled experiments have involved a comparison of this approach with other teaching methods. Claims for individualized reading have sometimes been extravagant, as can be seen by the conflicting evidence presented in the reports summarized here. Only four (192, 193, 194, 198) of the eight studies found in favor of individualized reading without qualifications, and none of these presented statistical comparisons in support of its conclusions. Two investigators (195, 199) found the approach inadequate, complex and time consuming, while two others (196, 197) found only slight differences favoring the individualized approach or found it inferior to other approaches in certain aspects of reading development.

**Comparative Studies.**—Four of the studies included in this section might also be grouped under causative factors, since they offer some insights into the factors which may partially account for differences among good and poor readers. They are included here because of the underlying implications which they suggest for the classroom teacher in his work with all pupils. The first of these was an intensive study of matched pairs of good and poor readers. This study (201) suggests that teachers should do everything possible to promote independence in all the activities of poor readers, since highly dependent natures seem to characterize these children. Another study (206) revealed that poor readers took longer for initial mastery of a list of paired associates, but that



they relearned the list just as quickly as their counterparts after a lapse of 24 hours. Auding ability was shown in another investigation (207) to be significantly related to reading ability, but further data revealed that intelligence may be the common factor underlying both of these abilities. The inability to predict outcomes on the part of even the good readers in this study points to a possible educational weakness for reading teachers to consider. One other study (210) was based on teacher opinions. It revealed that 70 percent of the poor readers were boys; that 22 percent had speech defects, while the best readers had none; and that 30 percent of the poor readers were physically immature.

Five of the comparative studies were concerned with reading achievement. One limited study (202) found sixth-grade urban children to be better readers than rural children, but found no difference between the achievement of girls and boys. Two investigations (203, 205) gave further evidence of the superior reading achievement of today's pupils in comparison with those of earlier periods. Another investigator (209) found no significant differences in the achievement of English and American children. Another study (211) gave further evidence that low achievers at the end of grade three are apt to be poor readers at the end of grade six.

Two studies (200, 212) compared the achievement of pupils using different types of instructional materials. Both work-study skills and vocabulary were found to be higher when pupils were provided with a wide variety of materials. Two other studies (204, 208) demonstrated the advantages of inservice education and of making use of pupil specialties.

**Subject Fields.**—Further evidence of the close relationship between reading ability and general achievement was supplied by the research reports in this area. Three studies (213, 219, 221) approached the content areas as a whole, while the others dealt with a particular subject.

Arithmetic accounted for the largest number of studies (216, 217, 218, 220, 224, 225). Findings differed, although a majority of the reports indicated a close relationship between arithmetic and reading ability. Intelligence and computation skill were found to have a higher correlation with problem solving than did reading.

Three studies (214, 222, 223) compared reading ability and science achievement. Demonstrations before reading assignments were found to be more effective than demonstrations after reading. Elementary pupils apparently lack flexibility in their approach to

science materials. Further evidence was also offered that fast reading is not always best, especially in science.

The value of a quick-flash device in developing an ability to read outline maps was shown in another study (215). The experimental group scored significantly higher both on a post-test and on a followup test 1 year later.

**Spelling.**—Evidence remains inconclusive as to the best methods for teaching spelling and for testing spelling ability. One critical analysis of scientific research for a 30-year period (232) found over 40 percent of the studies to be deficient in some aspect of research procedure. This investigator concluded that recall is superior to recognition as a method of testing. Another investigator (230) concluded that pupils who used words regularly in their writing spelled better. Another (228) found no difference in achievement for pupils taught by the contextual and column methods, but concluded that pupil attitude was better with the contextual approach. Two studies (227, 229) indicated that phonic knowledge makes a difference in spelling achievement. Two other studies (231, 233) gave further evidence of the close relationship between spelling ability and reading achievement.

**Teacher Preparation.**—There is a definite trend for State departments of education to establish certification requirements for reading specialists. Two of the research reports (234, 236) were concerned particularly with this trend and reported on such certification requirements. Although administrators consider lack of preparation and teacher inadequacies as a major problem in reading instruction (237), teachers on the whole regard their preparation as adequate (235). Teachers, however, expressed a need for better practice teaching, more demonstrations, and more frequent opportunities to observe the management of groups having a wide range of abilities and interests.



# Annotations of Research Studies

## Causative Factors

### Readiness

1. ANDERSON, IRVING H., HUGHES, BYRON O., DIXON, W. ROBERT. "Age of Learning to Read and Its Relation to Sex, Intelligence, and Reading Achievement in the Sixth Grade." *Journal of Educational Research*, vol. 49, 447-453, February 1956.

Sought to investigate age differences as a factor in learning to read; also to compare the age of learning to read with sex, intelligence, and reading achievement in sixth grade. Studied records of 142 boys and 175 girls at the Michigan University Elementary School. Gates Primary Reading Test scores available for primary period.

Found age of learning to read widely distributed, despite superior intelligence of most children in sample. Discovered that girls learned to read earlier than boys, with fewer extreme delays. Age of learning to read was more highly correlated with reading achievement in the sixth grade than with IQ scores in first grade.

2. ANDERSON, IRVING H., HUGHES, BYRON O., DIXON, W. ROBERT. "The Rate of Reading Development and its Relation to Age of Learning to Read, Sex, and Intelligence." *Journal of Educational Research*, vol. 50, No. 7. 481-94, March 1957.

Sought to determine relationship between rate of reading development and age of learning to read, sex, and intelligence. Tested 209 middle-grade pupils.

Found those learning to read between ages of 72 and 84 months have "significantly faster slope than those learning to read later", no significant difference in sexes.

3. BASTING, RUTH L. "Reading Readiness: A Predictor of Reading Achievement in the Intermediate Grades." Unpublished master's thesis, Illinois State Normal University, 1960.

Sought to determine extent to which readiness tests predicted success in reading in intermediate grades. Compared Metropolitan Readiness with Stanford Achievement scores of 100 children.

Found highly significant relationship between readiness and paragraph meaning, and significant relationship between readiness and word meaning.



4. BURWEN, BARBARA R., and CULLITON, THOMAS E., JR. "An Analysis of the Relationship of School Entrance Age to Mental Age and School Achievement in Grades One, Three, Five, and Eight." Unpublished master of education thesis, Boston University, 1958.

Sought to compare chronological age at school entrance with school achievement in the third and eighth grades. Checked Metropolitan Achievement Test results of 394 eighth-grade pupils for whom test scores were also available in grades 1 and 3.

Found that younger children achieved as well as older children; no significant differences between age group comparisons in reading, arithmetic, spelling, and language. It should be noted that this study involved group comparisons without any control of intelligence and without any attempt to compare an individual's attainment with his expectancy level.

5. HAMPLEMAN, RICHARD S. "A Study of the Comparative Reading Achievements of Early and Late School Starters." *Elementary English*, 331-334, May 1959.

Sought to compare school-entrance age with reading achievement in grade six. Data obtained from school records in Bloomington, Ind., for all pupils who entered school in September 1947, and finished sixth grade in June 1953, and who had all their schooling in Bloomington. Fifty-eight of 181 who met criteria were studied, those 6 years and 3 months or younger at entrance in Group I and those 6 years and 4 months or older in Group II.

Found median-reading score for Group II, 7 months higher; mean reading score, 4 months higher. Concluded that older children enjoy definite advantage over younger children in prognosis for reading success at time of school entrance.

6. HUFFINGTON, FLORENCE S. "Relation of Chronological Age to Reading Achievement." Unpublished master's thesis, Illinois State Normal University, 1957.

Sought to determine relationship between age of entrance into first grade and later achievement in reading. Compared reading scores in grades 2, 3, 5, and 7 with entrance age for 114 children in grade 7.

Found no significant relationship in grades two, three and five. From grade five to grade seven, progress in reading was greater for the older children.

7. JENSEN, ARVESTA YOUNG. "Reading Readiness as Predictor of Achievement." Unpublished master's thesis, Illinois State Normal University, 1960.

Sought to determine value of readiness test in first grade as predictor of reading success in middle grades. Tested 100 students over a 3-year period.

Concluded that readiness is a prerequisite, "whether tested or not" and that boys need longer readiness period than girls prior to systematic instruction.

8. MORRIS, HAZEL B. "Relation of Age and Readiness to Reading." Unpublished master's thesis, Illinois State Normal University, 1956.

Sought to determine relationship between chronological entrance age and future success in reading and between readiness as shown by first-grade tests and achievement in grade five. Also sought to determine sex differences. Tested 177 fifth graders with California Achievement Tests and compared results with their Metropolitan Readiness Test results in first grade.

Found little relationship between chronological entrance age and future success in reading. Group making higher scores on readiness test was higher on achievement tests.

### Individual Differences

9. HUGHES, BYRON O. "Variability Among and Within Individuals in Relation to Education." *Merrill-Palmer Quarterly*, vol. 1, 167-187, 1957.

Sought through longitudinal measures to estimate variability in physical and mental development and in reading, spelling, and arithmetic achievement. Studied growth records of 100 boys said to be representative of male population at University of Michigan Laboratory School.

Found tremendous variability both within and between individuals. Concluded that modern child management and education should adapt itself more fully to the realities and implications of this variation and should avoid subjecting individual children or groups of children to procedures, methods, and practices which assume or imply that these differences are nonexistent or easy to change.

10. KETCHAM, WARREN A., and LAFFITT, RONDEAU G., JR. "How Well Are They Learning?" *Educational Leadership*, March 1959.

Sought to determine how well children achieve in reading in relation to their chronological and mental ages. Longitudinal records kept for 50 children entering first grade in Ferndale, Mich., in 1951. Testing program completed in 1957.

Found wide range of individual differences in mental abilities and learning of children no matter how early they are tested. Range of individual differences increased with chronological age. Charting of learning progress showed high degree of individuality in each child's record.

### Intelligence

11. ALTUS, GRACE T. "A WISC Profile for Retarded Readers." *Journal of Consulting Psychology*, vol. 20, No. 2, 155-56, April 1956.



Sought to determine whether children reading 2 years or more below expected level disclosed distinctive test patterns on the Wechsler Intelligence Scale for Children. Found 25 children in 12 schools of Santa Barbara County, Calif., who met criteria.

Found Coding and Arithmetic subtests to be significantly lower than Vocabulary Digit Span, Picture Completion, Object Assembly and Picture Arrangement. Findings were not conclusive because of the small number of cases, but tended to support trends found earlier by Altus with adult poor readers.

12. BALOW, BRUCE E. "An Investigation of the Relationships Between Reading Ability and Learning of Non-Reading Tasks of Varying Complexity." Unpublished Ph. D. dissertation, College of Education, University of Minnesota, 1958.

Sought to compare reading achievement with ability to perform certain nonreading tasks. Tested 208 fifth graders.

Found no significant differences.

13. BURKS, HAROLD F., and BRUCE, PAUL. "The Characteristics of Poor and Good Readers as Disclosed by the Wechsler Intelligence Scale for Children." *Journal of Educational Psychology*, vol. 46, 488-93, December 1955.

Sought to determine whether distinctive patterns could be obtained on the WISC for good and poor readers. Tested 11 good readers (one or more years above grade level on reading section of Wide-Range Achievement Test) and 31 poor readers (one or more years below grade). Grade placements ranged from third through eighth.

Found poor readers significantly low on Information, Arithmetic, and Coding; significantly high on Picture Arrangement, Block Design, and Comprehension. The good readers were significantly high on Similarities. Hypothesized that poor readers approach learning situations in a more concrete manner because of difficulty in handling abstractions.

(Although this study suggests approaches for a further comparison of mental ability and reading achievement, its value is lessened by the small samples involved.)

14. GUNDERSON, RICHARD O. "The Significance of Divergencies Between Verbal and Nonverbal Scores." Ph. D. dissertation, published in *Journal of Educational Psychology*, vol. 51, 115-121, June 1960. State University of Iowa, 1959.

Sought to study significance of divergences between verbal and nonverbal intelligence scores on CTMM and Lorge-Thorndike tests.

Concluded that high verbal intelligence leads to superiority in reading, language and vocabulary; high nonverbal and low verbal intelligence, to reading deficiency—especially if difference is 16 IQ points or more.

15. HAGE, DEAN S., and STROUD, JAMES B. "Reading Proficiency and Intelligence Scores, Verbal and Nonverbal." *Journal of Educational Research*, vol. 52, No. 7, 258-261, March 1959.

Sought to establish relationship under certain conditions among reading proficiency and verbal and nonverbal intelligence scores. Gave Lorge-Thorndike Intelligence Tests, Pressey Reading Rate and Com-



prehension Tests, and Iowa Tests of Basic Skills to 800 ninth grade pupils in 10 northeastern Iowa public schools.

Found that reading comprehension and rate correlated significantly with both verbal and nonverbal intelligence scores but more highly with verbal scores. Concluded that verbal intelligence scores give better predictions of academic achievement than do nonverbal scores, at all levels of reading proficiency.

16. HARRINGTON, SISTER MARY JAMES, and DURRELL, DONALD D. "Mental Maturity Versus Perception Abilities in Primary Reading." *Journal of Educational Psychology*, vol. 46, 375-80, October 1955.

Sought to determine the relative importance of mental maturity and perception abilities in beginning reading. Gave an informal oral reading test and a silent word classification test to 500 children at the end of grade two in parochial schools of the Archdiocese of Boston.

Found through a pairing technique that many children high in mental ability scored no higher than those of low mentality on the background factors that make for success in reading. Concluded that specific instruction in phonics and in visual and auditory perception of word elements is essential to success in building reading vocabulary in primary grades.

17. HARVEY, ELIZA C. "A Qualitative Analysis of Certain Reading Difficulties of a Group of Slow Learners with Some Implications for Teaching." Unpublished master's thesis, District of Columbia Teachers College, 1957.

Sought to make qualitative analysis of the reading difficulties revealed by slow learners. Tested one class of 22 children with IQ's ranging from 62 to 84, using Stanford-Binet (Form L), Durrell-Sullivan Reading Capacity Test, Stanford Achievement and Durrell Analysis of Reading Difficulty.

Found majority achieved higher in arithmetic, spelling and language than in reading. In only four cases was there "a harmonious achievement pattern in learning."

18. HOUK, ELOISE ANDREWS. "A Five-Year Study of an Educable Mentally Retarded Class at Keystone School." Unpublished master's thesis, East Tennessee State College, 1961.

Sought to evaluate effectiveness of educable mentally retarded program in Johnson City, Tenn. Study conducted for 5 years through psychological testing, achievement testing, teacher evaluation, case histories, health records and class records.

Found increased learning rate for those in special class for 2 years or more. Found wide range of interests and abilities within group, perhaps more than for normal children. Concluded they must be handled as individuals with highly varied needs. Found difficulty in transfer of learning. Concluded that vocational training is most pressing need.

19. JUSTMAN, JOSEPH, and ARONOW, MIRIAM. "The Davis-Eells Games as a Measure of the Intelligence of Poor Readers." *Journal of Educational Psychology*, vol. 46, 418-22, November 1955.

Sought to determine usefulness of Davis-Eells Games as a measure of intelligence of poor readers. Gave the test to 246 sixth-grade pupils for whom Pintner Intermediate Test scores were available.

Found that D-E Games placed approximately 10 percent more of the children in the 90 to 109 IQ range than did the Pintner. Concluded that the D-E Games cannot be viewed as a markedly better measure of IQ for poor readers at the sixth-grade level.

20. KALLOS, GEORGE L., GRABOW, JOHN M., GUARINO, EUGENE A. "The WISC Profile of Disabled Readers." *Personnel and Guidance Journal*, 476-78, February 1961.

Sought to analyze the WISC profiles of a specified sample of poor readers and to compare the findings with those reported earlier by Altus. Sample was composed of 37 boys, aged 9-0 to 14-0, with Full Scale IQ scores of 90-109 from 800 children tested at Michigan State University Reading Center during 2½-year period. Each was reading at least 2 years below his age-grade expectation.

Found no statistically significant difference between Verbal and Performance IQ's. Block Design was significantly higher than six other subtests, and Information, Coding, and Arithmetic were significantly lower than at least two other subtests. The profiles resulting from this study and from Altus' study differed most noticeably in the areas of Arithmetic, Vocabulary, Picture Completion, and Block Design.

21. LARSON, ROBERT E., and SELAND, CYNTHIA T. "A Comparison of Reading Ages With Mental Ages." *Journal of Educational Research*, vol. 52, No. 2, 55-59, October 1958.

Sought to compare mental ages of 475 sixth-grade pupils with their reading ages and from these findings determine reasons for underachievement. Mental ages of pupils derived from Kuhlmann-Anderson Intelligence Test and reading ages derived from Iowa Basic Skills, Part One.

Found that 36.7 percent of pupils had reading ages which were 1 or more years less than their respective mental ages; of these, 77 percent ranked above the 100 IQ level. Underachievement in 107 of 206 cases was attributed to nervousness or emotional problems, according to teacher opinion. Other factors involved in reading retardation were lack of time, inadequate facilities, and age variance.

22. MANOLAKES, GEORGE, and SHELDON, WILLIAM D. "The Relation Between Reading-Test Scores and Language-Factors Intelligence Quotients." *The Elementary School Journal*, 346-350, February 1955.

Sought to determine the effect of a pupil's reading ability upon his intelligence quotient as measured by written tests. Computed correlations between reading scores on Progressive Achievement Test and language-factors IQ scores on the California Test of Mental Maturity.

Found steady increase in correlation coefficients from first through 12th grade, except at grades four and five. Hypothesized that this may lend support to the idea of a "fourth-grade hump" in reading and that it may reflect need for more and better reading instruction beyond grade three.



23. ROBERTS, DODD E. "Some Effects of an Oral-Visual Presentation of a Group Intelligence Test on Selected Seventh Grade Pupils Reading at Varying Levels." Ed. D. dissertation, University of Missouri, May 1958.

Sought to determine effect on IQ scores of administering a group intelligence test orally. Gave California Reading Test and Lorge-Thorndike Intelligence Test to 400 seventh-grade pupils in two public schools of Springfield, Mo.

Found that some individuals increased their IQ's as much as 32 points, while others dropped as much as 20 points. Changes in IQ points generally favored the oral-visual presentation. Concluded that IQ and reading achievement tests tend to measure similar abilities.

24. SISTER JOSEPHINA, CSJ. "Reading Accomplishment of Gifted and Average Pupils." *Educational and Psychological Measurement*, vol. 18, No. 4, 867-871. Winter 1958.

Sought to determine whether gifted students achieve according to their expected performance levels. Fifty boys and girls in grades 5 and 6 were classified as average and 50 as gifted, according to CTMM. Reading levels determined by California Reading Test.

Found that gifted were more retarded in reading vocabulary and reading comprehension in relation to expected levels than were those of average mentality.

25. SPEIDEL, ELIZABETH B. "Language Achievements of Mentally Retarded Children." Unpublished Ed. D. dissertation, Boston University School of Education, 1958.

Studied language achievement of mentally retarded. During 15 weeks, tested 209 pupils in 16 classes for mentally retarded in two cities near Boston. IQ range was 50 to 79, according to Stanford-Binet.

Found listening comprehension the best channel for learning, especially in primary grades; found reading ability much lower and lower than would be expected for MA. Spelling growth not commensurate with MA. Relative competence in speaking and in oral recall significantly lower in upper grades in comparison with lower grades.

26. TOUSSAINT, ISABELLA M. "Interrelationships of Reading, Listening, Arithmetic, and Intelligence and Their Implications." Unpublished Ph. D. dissertation, University of Pittsburgh, 1961.

Sought to find combination of factors most useful for estimating potential reading achievement for middle grade pupils. Gave five group tests and one individual test to 172 pupils in grades four, five, and six in two Western Pennsylvania elementary schools.

Found STEP Listening Test showed closer relationship with scores on Gates Reading Survey than did Durrell-Sullivan Reading Capacity Test. Stanford-Binet and SRA Primary Mental abilities gave similar predictive values. Combined STEP, Listening, and Primary Mental abilities gave higher estimate than any other combination of two selected measures. These two measures combined with American School Achievement and Arithmetic Computation gave higher prediction scores than any other combination of three. Concluded that more accurate measure of reading potential obtained from all three variables than from any single test alone.



**Bilingualism**

27. DIDDING, CHRISTINE G. "An Investigation Into the Bilingual Child's Comprehension of Antonyms." Unpublished master's thesis, University of New Mexico, 1961.

Sought to determine relationship between bilingualism and comprehension of antonyms. Devised antonyms test of words at, or below, fourth-grade level. Gave to 98 Albuquerque "Anglo" fourth graders and to 782 fourth and sixth-grade Indian and Spanish-American children.

Found mean scores highly correlated with amount of English spoken in home. Recommended that English be taught as foreign language to bilingual children in public schools.

28. HARVELL, DAVID K. "Reading Norms For English-Chinese Speaking Children." Unpublished master's thesis, University of California, 1959.

Sought to establish reading norms for English-Chinese speaking children of Lincoln school in Oakland, Calif. Tested 154 children in fourth, fifth, and sixth grades.

Found these children to be from 10 to 12 months retarded in reading according to national norms for Stanford Achievement Test. Found them performing approximately 13 months below expectancy based upon mental age.

29. MERCER, VETA W. "The Efficiency of Bilingual Children in Understanding Analogies in the English Language." Unpublished master's thesis, University of New Mexico, 1960.

Sought to determine efficiency of Indian and Spanish-American children in understanding English language analogies. Developed test of analogies equal in difficulty to words at and below fourth grade in standard reading texts.

Found control group of "Anglo" fourth graders superior to Indian and Spanish-American children in fourth, fifth and sixth grades.

30. SCHNEIDER, ALBERT A. "An Investigation of Bilingualism and Achievement in Reading in the Fourth Grade of the Parochial School System in the Archdiocese of Santa Fe—1957-1958." Unpublished master's thesis, University of New Mexico, 1961.

Sought to determine relationship between bilingualism and reading achievement among fourth graders in Santa Fe. Tested 340 children; matched 112 pairs by age, sex and IQ.

Found unilinguals on average gained 1.3 months more in reading than did bilinguals.

31. YANDELL, MAURINE D., and ZINTZ, MILES V. "Some Difficulties Which Indian Children Encounter with Idioms in Reading." Unpublished master's thesis, University of New Mexico, 1959.

Sought to determine difficulties with English idioms experienced by Indian children in New Mexico. Navajo, Apache, and Pueblo children in New Mexico almost always must learn English as a second language. Prepared 90-item idioms test, using expressions found in fourth-, fifth-, and sixth-grade tests of three major publishers. Administered test to

390 control "sixth-grade Anglos" to establish norms. Gave test to 516 sixth-grade pupils in Gallup-McKinley County (Anglo, Spanish, Zuni and Navajo ethnic groups).

Found correlation of .941 between reading scores and scores on idiom test when given to Navajo pupils. Concluded that teachers should provide special help for Indian children in interpreting idioms. Saw need to develop better understanding of idiom among bilingual children.

## Vision and Hearing

82. EDGAR, ROBERT CLAREN. "An Investigation of the Relationship Between Certain Types of Hearing Loss and the Perception and Discrimination of Initial High Frequency Phonetic Elements by Elementary School Children." Unpublished master's thesis, Claremont Graduate School, May 1960.

Sought to determine relationship between binaural, high-frequency hearing loss and the ability to discriminate. Thirteen high-frequency phonetic elements were used. Subjects included 15 primary and 16 middle grade pupils who had binaural hearing thresholds of 20 decibels or more in frequencies above 3,000 cycles per second.

Found no relationship between binaural, high-frequency hearing loss and the perception, visual identification and vocal reproduction of initial, high-frequency consonant sounds. Did not report how high-frequency consonant sounds were determined.

83. GILBERT; LUTHER C. "Genetic Study of Eye Movements in Reading." *The Elementary School Journal*, vol. 59, No. 6, 328-335, March 1959.

Recorded eye movement of 22 subjects in the second, fourth and sixth grades and again in college.

Found silent-reading pattern predominantly word by word in grade two, this habit persisting even at college level for some. Length of fixation pause sharply reduced by all students.

84. GOETZINGER, C. P., DIRKS, D. D., and BAER, C. J. "Auditory Discrimination and Visual Perception in Good and Poor Readers." *Annals of Otology, Rhinology, and Laryngology*, vol. 69 No. 1, March 1960.

Sought to determine the relationship of auditory discrimination and visual perception with high- and low-reading achievement. Fifteen poor readers and 15 good readers were matched in age (within 6 months), IQ (within six points) and sex (all boys). They were examined with recorded W-22, recorded Rush Hughes and nonrecorded Wepman Tests, with Raven's Progressive Matrices, Gottschaldt Figures and a Figure Ground test.

Found that poor readers had normal hearing in both ears, according to audiometric, pure tone threshold tests. Poor readers scored significantly lower on the Wepman and Rush Hughes auditory discrimination tests and on the nonverbal (Raven's) intelligence test. No statistical difference found on the Figure-Ground test, but the Gottschaldt Figures differentiated good and poor readers at the 5-percent level of confi-



dence. Despite the small number of subjects, it would appear that a true difference in auditory discrimination and auditory perception abilities may exist for good and poor readers even when vision and hearing are "normal".

35. MALONEY, LOUISE ANN. "Auditory Discrimination and its Relation to the Reading Program." Unpublished master's thesis, Illinois State Normal University, 1960.

Sought to determine importance of auditory discrimination in relation to reading. Tested 24 middle-grade pupils for period of 2 years and 4 months.

Found auditory discrimination important in all reading "as long as auditory discrimination skills were stressed."

### Testing

36. CUTTS, WARREN G., and MILLS, RAY. "Teacher Judgment of Reading and Mental Abilities." Study conducted for Chagrin Falls, Ohio, Schools by Kent State University, 1957.

Sought to determine extent of reading disability cases in grades three through six of Chagrin Falls, Ohio, schools and teacher ability to screen pupils for intensive diagnostic testing. Fourteen teachers and 400 children participated. Teachers attempted to select (1) pupils known to be working markedly below their ability levels, (2) low achievers about whom there was some doubt concerning ability, and (3) the poorest readers in class irrespective of ability. Tests used included Durrell-Sullivan achievement and capacity tests and Durrell Analysis of Reading Difficulty.

Found teachers as a whole unable to make valid judgments concerning the three categories, although there were notable exceptions. Teachers tended to rate reading ability primarily upon performance in oral reading. Disparities between achievement and capacity ranged from 4.9 grade levels to zero. Fifty-four pupils revealed disparities of 1.6 grades or more.

37. HITCHCOCK, ARTHUR A., and ALFRED, CLEO. "Can Teachers Make Accurate Estimates of Reading Ability." *Clearing House*, vol. 29, 422-423. March 1955.

Sought to determine whether teachers can make accurate evaluations of student reading ability. English teacher rated 101 eighth-grade students on reading ability. Grade placement rating given student in three areas: Paragraph meaning, word meaning, and average reading ability. Teacher rating based on eight criteria. Stanford Reading Achievement Test, Intermediate, administered to students.

Found test results and teacher's ratings corresponded closely. Concluded teachers using criteria established empirically can make accurate estimate of student reading ability, but emphasized this would not apply to all teachers.

38. HUMPHRY, KENNETH H. "An Investigation of Amount-Limit and Time-Limit Methods of Measuring Rate of Reading." Ph. D. dissertation, Published in *Journal of Developmental Read-*



ing, vol. 1, 41-54, October 1957. University of Iowa, Iowa City, 1958.

Sought to compare amount-limit and time-limit approaches to reading testing. Constructed 12 rate-of-reading tests, 6 of which were amount-limit tests of different length; 6 time-limit tests.

Found little difference between reliability coefficients (all around .80) of the amount-limit and time-limit tests. Concluded that "fairly short" (4-minute) time-limit tests appear to be just as valid as other tests which require more time or are more difficult to administer.

39. LONG, DONNA JANET. "An Analysis of the Reading Difficulties of Retarded Readers in Second, Fourth, and Sixth Grades." Unpublished Ph. D. dissertation, State University of Iowa, 1959.

Sought to analyze difficulties of retarded readers in second, fourth and sixth grades in Davenport, Iowa. Thirty-four students chosen at random from those with IQ's of 90 or higher at each grade level and 17 at each grade level from the below-90 group. Teachers completed reading checklist for each; also tested with Durrell Analysis, Gates Reading Test, McKee Inventory of Phonetic Skill and an informal word-analysis test.

Found significant difference between teacher ratings and test achievement scores. Word recognition deficiencies were most frequent in lower grades. Oral reading and comprehension deficiencies were most common in upper grades. Concluded that teachers fail to instruct retarded readers at low enough level.

40. MURRAY, CAROL FAITH. "A Concurrent Validity Study of the Silent Reading Diagnostic Tests and the Gates Reading Diagnostic Tests." Unpublished master's thesis, 1959.

Sought to determine current validity of the Silent Reading Diagnostic Tests and the Gates Reading Diagnostic Tests. Compared scores from matched subtests and treated them statistically by direct-difference method, using "t" and "f" tests of significance.

Found no significant differences in two subtests. Rejected validity in eight tests, accepting assumption of concurrent validity in only subtest "a", word recognition skills. Suggested that limitations be repeated in subtest "e", ending errors.

41. THARP, FRANCIS M. "Subjective Versus Objective Evaluation of Elementary Grade Pupils in Reading." Unpublished master's thesis, Illinois State Normal University, 1960.

Sought to study relationship between subjective evaluation by teachers and scores on Stanford Achievement Test for reading. Tested 100 middle-grade pupils.

Found teachers tended to overrate reading performance.

### Diagnosis

42. BAUMANN, MAYMIS L. "Differing Instructional Needs for Children of Similar Reading Achievement Grades Two, Four and Six." Unpublished master's thesis, Boston University, 1960.

Sought to discover certain, common instructional needs of children at the same grade level. Tested 539 children in 24 second, fourth and sixth grades with battery of standardized and unpublished tests during a 2-week period.

Found the greatest need for instruction to be: (1) At grade two eliminating lip movements and whispering in oral reading; (2) at grade four, greater silent reading speed, skimming ability, knowledge of diacritical marks, ability to hear sounds in words, and ability to rapidly locate words in dictionary; (3) at grade six, skill in oral reading, knowledge of diacritical marks and homophones, skimming, word analysis skills, and speed in using dictionary.

43. BROWN, KENNETH R. "Reading Handicapped in Grades Seven and Eight." Unpublished M.A. field study, San Francisco State College, 1958.

Sought to determine which children in junior high school profit from developmental reading in regular class and which were so retarded as to require special help. Tested 676 seventh- and eighth-grade children in south San Francisco with the CTMM and California Reading Test.

Found greatest weaknesses to be word recognition and vocabulary. Found eighth graders closer to expectancy. Concluded that significant number in both grades would profit from strong developmental program in reading.

44. ESTEP, VIVIAN C. "The Diagnosis and Remedial Treatment of the Reading Difficulties of Seventeen Seventh-Grade Students at the Junior High School." Unpublished master's thesis, East Tennessee State College, 1960.

Sought to diagnose and provide remedial treatment for 17 seventh-grade students at Shelby, N.C., Junior High School. Gave Pintner General Abilities, Diagnostic Reading Tests, and Iowa Every-Pupil Tests of Basic Skills.

Found greatest weaknesses to be word recognition and vocabulary. Recommended continuous diagnosis and more time for remedial work.

45. GALLEN, ALBERT A. "A Diagnostic Reading Inventory for the Determination of Reading Achievement in Science Materials for Intermediate Grade Levels." Unpublished Ed. D. dissertation, Temple University Reading Clinic, 1959.

Sought to construct a valid diagnostic reading inventory in science for grades four, five, and six. Tested 50 pupils selected randomly from each grade level in West Chester, Pa.

Found test was not reliable, but concluded ability of intermediate pupils to read science very limited.

46. MCCONNELL, ELSIE H. "A Study of the Reading Difficulties of Children in Alwick School, Blount County, Tennessee." Unpublished master's of science, University of Tennessee, 1956.

Sought to study reading difficulties of 28 fourth-grade pupils in one school in Blount County, Tenn. Gave Stanford Achievement, Lorge-Thorndike Intelligence and Weekly Reader tests.

Concluded that remedial work should begin earlier.



47. PRESTON, RALPH C., and SCHNEYER, J. WESLEY. "The Neurological Background of Nine Severely Retarded Readers." *Journal of Educational Research*, vol. 49, 455-458, January 1956.

Sought to investigate the severely retarded reader with the hope of illuminating basic problems characteristic of alexia. Study made of nine retarded readers, five of whom were nonreaders ranging in age from 8 to 15. Remaining four varied in age from 11 to 18 and had only small vocabularies, but read independently from simple materials. Total group had an IQ range between 71 and 129 with a median of 92.

Found through neurological examinations that damage to the nervous system was present in three cases. All nine cases raised questions as to possible brain damage which could have induced an alexic condition.

48. SPACHE, GEORGE. "Personality Patterns of Retarded Readers." *Journal of Educational Research*, vol. 50, 461-469, February 1957.

Sought to explore usefulness of Rosenzweig Picture-Frustration Study in determining various personality types and specific emotional disturbances characteristic of severely retarded readers. Tested 125 referrals at University of Florida reading clinic; all were at least 1 year below grade in reading.

Found Rosenzweig Test "extremely useful" in differentiating children for different types of therapy such as individual or group remedial work, play therapy, psychiatric treatment, or combined therapy. Granted that usefulness of Rosenzweig Test hinges upon its validity, but concluded it is capable of identifying the following major groups: (1) An aggressive or hostile group in conflict with authority figures; (2) an adjustive group which seeks only to be inoffensive; (3) a defensive group that is sensitive and resentful; (4) a solution-seeking or peacemaking type; (5) the autistic group characterized by blocking or withdrawal.

49. SUTTON, BEULAH P. "Identification and Correction of Reading Difficulties in the Sixth Grade Etowah Junior High School." Unpublished master's thesis, University of Tennessee, 1958.

Sought to determine extent and nature of reading problems among 87 sixth-grade children in Etowah, Tenn. Tested with Stanford Achievement, Gates Reading, Lorge-Thorndike Intelligence and teacher-constructed tests.

Found high correlation between reading ability and academic achievement. Concluded that many poor readers can be helped even with crowded classrooms and limited facilities.

50. TAIT, JAMES F. "Mild Neurological Impairment as a Factor in Reading Disability: An Experimental Study." Unpublished Ph. D. dissertation, University of Southern California, 1956.

Sought to determine whether neurological impairment (specifically brain injury) characterizes children with reading disabilities, as opposed to a control group of average readers. Compared a group of 51 subjects retarded at least 1½ years in reading with a control group of equal size, both selected from grades four, five, and six. Mean IQ for retarded readers was 101; for average readers, 102. All subjects fell



into 95 to 120 IQ range, according to California Test of Mental Maturity. Tested subjects "individually and randomly" with flicker fusion test, Strauss-Werner marble board test and Kohs black design test. Did not administer EEG or other more refined tests of brain damage.

Found that retarded readers show flicker thresholds significantly more like brain-injured individuals than subjects who read adequately; that retarded readers show reduced perceptual acuity, procedural efficiency, and impulse control, and in general perform more like brain-injured children on the Strauss-Werner marble board test than do adequate readers. Retarded readers showed a significantly higher incidence of childhood diseases associated with neurological sequels than adequate readers, particularly before age 6.

**51. TEMPLIN, FRANCES MCC.** "The Diagnosis and Remedial Treatment of Reading Abilities of a Fifth Grade Class at Colonial Heights School in Sullivan County, Tennessee." Unpublished master's thesis, East Tennessee State College, 1961.

Sought to diagnose reading abilities and provide remedial reading for fifth grade class in Sullivan County, Tenn. Gave Lorge-Thorndike Intelligence, California Reading and Gates Basic Reading tests.

Concluded that teacher should include parents and pupils in planning remedial program.

### Other Factors

**52. ANDERSON, PHILIP S.** "The Effects of Teacher Attitudes Toward Learning Theories and Toward Children on Pupil Achievement in Fourth Grade Arithmetic and Reading." Unpublished Ph. D. dissertation, College of Education, University of Minnesota, 1955.

Sought to determine effect of teacher attitudes on pupil achievement in arithmetic and reading. Gave Minnesota Teacher Attitudes Inventory to 21 fourth-grade teachers. Constructed Methods Survey scale for study.

Found teachers who stressed meaning more effective with brighter children, while "neutral and drill method" teachers excelled with pupils of lower ability. Failed to find any relationship between teacher attitudes and pupil achievement.

**53. BORUSCH, BARBARA J.** "Sibling Resemblance in Reading and Arithmetic Growth." Unpublished Ed. D. dissertation, University of Michigan, 1959.

Sought to determine sibling resemblance in academic development in reading and arithmetic. Studied records of 259 children from 120 families in Ann Arbor, Mich., from kindergarten through grade 12.

Found variance between families greater than within families, but no significant relationship between reading age patterns at specific "age intercept" of siblings or sibling pairs.

**54. CHALIP, BERNARD R.** "The Relationship Between Socio-Economic Factors and Academic Achievement as Measured in Reading and Arithmetic for the Entire 6th Grades of a School

System." Unpublished M.A. field study, San Francisco State College, 1957.

Sought to discover correlation between socioeconomic level and intelligence, and the correlation between reading and arithmetic achievement and socioeconomic status. Gave Otis Beta Group Intelligence and California Achievement tests to 623 sixth-grade pupils in "widely varying neighborhoods of city."

Found that as socioeconomic level declines reading and arithmetic achievement decreases. Same tendency for IQ levels for extremes, but not for middle range. Concluded IQ not alone responsible for difference between upper and lower socioeconomic levels in reading achievement.

55. FRAZIER, ELIZABETH. "A Study of Certain Autonomic Physiological Reactions of Selected Children Reading at Various Levels of Difficulty." Ed. D. dissertation, University of Missouri, June 1957.

Sought to determine changes in respiration rate, heart beat, galvanic skin response and blood pressure in two groups of selected children engaged in reading on different levels of difficulty. Twenty children reading a grade or more above their school placement and 20 reading a grade or more below were selected from fifth and sixth grades in Columbia, Mo. The four autonomic physiological responses were recorded on a Keeler Polygraph while pupils were reading from Gray's Oral Reading Paragraph Test on their independent, instructional and frustration levels.

Found that act of reading evoked emotional reaction in both groups. The frustration level of reading seemed to cause reactions of greater intensity among the below-norm readers. Heart rate was the physiological factor most noticeably affected in both groups. Difficulty of the reading selection seemed to be more responsible for differential changes in the autonomic physiological reactions than did the subjects' reading ability.

56. HINKLEMAN, EMMET ARTHUR. "Relationship of Reading Ability to Elementary School Achievement." *Educational Administration and Supervision*, vol. 42, 65-67, February 1956.

Sought to determine how reading ability, as measured by teacher's marks, correlates with achievement in nine other curriculum areas. Examined scholastic records of 30 boys and 30 girls in eighth grade. Final reading grades (excellent, good, fair, and unsatisfactory) correlated by means of rank order correlation method with teacher's marks in areas of written and oral composition, arithmetic, spelling, social studies, science, music, art, and penmanship.

57. HOLMES, JACK A., and FINLEY, CARMEN J. "Under-and-Over-Age Grade-Placement and School Achievement." *Journal of Educational Psychology*, vol. 48, No. 7, 447-456, November 1957.

Sought to determine relative importance of "certain academic disciplines as causes of nonpromotion, promotion and acceleration." Tested 293 boys and 312 girls from grade 7 and 318 boys and 293 girls from grade 8 in Sonoma County, Calif. Found Grade-Placement Deviation (GPD) by computing difference between child's actual grade placement



and his expected grade placement based upon chronological age. Gave California Achievement Test battery.

Found, through statistical treatment, that achievement in spelling was a universal, independent contributor to the variance of GPD. Reading vocabulary, reading comprehension, mechanics of grammar and arithmetic reasoning also found important. Concluded that knowledge for its own sake, especially in mathematics and science, must be more enthusiastically supported and evaluated as important accomplishments in elementary school.

58. HUELSMAN, CHARLES B. JR. "A Factor Study of Reading Skills." Unpublished study, Miami University, Oxford, Ohio. Not completed.

Sought to define reading more exactly "as human act." Gave battery of reading tests to 60 middle-grade pupils and studied relationship through factor analysis.

Found "vocabulary and comprehension are very similar ( $r=.91$ ) . . . rate and perception differ ( $r=.50$ )." Concluded that rate and perception are also different from vocabulary and comprehension, reporting a correlation of .55 between these combined variable.

59. KYLE, HELEN FRANCES. "Pitch of the Voice in Certain Speaking and Reading Activities Among Elementary School Children." Unpublished Ed. D. dissertation, Boston University School of Education, 1956.

Studied children's vocal pitch in conversation, easy reading, unaided recall of easy reading, difficult reading, and unaided recall of difficult reading for 160 pupils in second, fourth and sixth grade in a small city 20 miles from Boston. Duration of study not indicated.

Found mean vocal pitches similar from grade to grade, except for a significantly higher speaking pitch for grade two in comparison with grade six. When grouped according to educational achievement the lower third of the class was found to use significantly higher speaking pitch than upper third at grades two and four.

60. PRESSNALL, HUGO E. "Parents Opinions of Methods of Reading Instruction at Fourth and Fifth Grade Levels." Unpublished master's thesis, University of California, 1955.

Sought to gain an understanding of parents' opinions of reading instruction methods. Specifically, how satisfied are they with children's reading ability, with teacher's ability to teach reading and present instructional methods; what methods need more emphasis or less emphasis; and, how present methods compare with those used when they were in school. Had 218 parents of fourth and fifth graders in two Richmond, Calif., schools answer questionnaire; approximately one-half failed to respond.

Found 80 percent of answering parents satisfied with children's reading ability and vocabularies. Displeasure was primarily over lack of dictionary skills, and parent tended to feel need for more emphasis on phonics, syllabication and oral reading. Professional group tended to show greatest satisfaction; semiskilled, least satisfaction with present reading instruction.



61. WOLLNER, MARY H. B. "Some European Research in Reading Disabilities." *Education*, vol. 78, 555-60, May 1958.

Sought to discover extent of reading retardation in three European countries. Spent 4 months in educational centers of Austria, Germany, and France.

Found that Europeans are very much aware of reading disabilities, and that the French have developed the most vigorous research into linguistic performance outside the Scandinavian countries. Definitions stress the complex etiology of reading disability. As in America, some experts are inclined toward a medical-neurological approach; others, a psychopedagogical or developmental approach. Elements held in common by all the remedial programs were diagnostic keenness, enthusiastic championship, devoted and insightful teaching, and an attempt to remove the pupil from failure while providing him with a fresh start and new hope.

## Psychological Factors

### Motivation

62. PACKER, CHESLEY C. "A Comparative Study of the Effect of Teacher Stimulation on the Amount of Reading Done by a Fifth Grade Class." Unpublished master's thesis, Central Washington State College, 1958.

Sought to determine effect of special motivation (not described) upon reading habits of a fifth-grade class.

Found amount of reading done by experimental group substantially higher than control groups. Groups not equated.

63. SILBERMAN, HARRY F. "Effects of Praise and Reproof on Reading Growth in a Non-Laboratory Classroom Setting." *Journal of Educational Psychology*, vol. 48, 199-205, April 1957.

Sought to compare the effects of praise and reproof on learning tasks. Data collected from 904 pupils in third, fourth, fifth, and sixth grades, taught by 49 beginning teachers during the 1954-55 school year.

Concluded that results of analysis did not yield significant relationships between independent variables and reading growth of pupils.

### Interests

64. BIRKETT, SARAH ALICE. "A Study to Determine the Reading Interests of Children in Grades Four Through Eight Together With an Annotated Bibliography of Books Pertinent to the Study." Unpublished thesis for M. Ed., Rhode Island College, June 1959.

Sought to discover reading interests of children in grades four through eight. Gave questionnaire to 521 pupils in five schools of Portsmouth, R.I.

Found that girls read more books than boys; that boys showed wider interests; that girls' interests narrowed primarily to books about people as they approached grade eight.

65. **BLAKELY, WILLIAM PAUL.** "A Study of Seventh Grade Children's Reading of Comic Books as Related to Certain Other Areas." Unpublished Ph. D. dissertation, State University of Iowa, 1957.

Sought to determine effect of comic book reading on certain other variables. Used questionnaire approach with 323 seventh-grade boys and girls in Cedar Rapids, Iowa. Visited parents of 10 percent of children. Grouped children as "Nonreaders," "Light Readers," "Moderate Readers," and as "Heavy Readers." Also grouped according to quality of comic books read.

Found that seventh grade children who differ as to frequency and types of comics read do not differ as to intelligence, reading ability, language arts achievement or behavior problem status. Found that frequency of comic reading had no bearing on reported personal problems, but that seventh-grade girls who read moderate proportion of "objectionable" titles seemed to have more personal problems of a general nature. Found that those who read most comics also read most library books.

66. **BURKHARDT, MARIE W.** "A Critical Analysis of the Fiction Section of the Standard Catalog for High School Libraries to Determine the Extent to Which It Meets the Interests and Needs of Adolescents." Unpublished master's thesis, August 1958.

Sought to analyze fiction titles in Standard Catalog for High School Libraries to determine extent to which they coincide with adolescent interests.

Found great diversity among titles. Concluded that they meet adolescent interests and needs, but that need is great for fiction based on latest scientific experimentation and for more on minority groups.

67. **COOPER, K. ADELIN.** "An Analysis of the Independent Reading of Sixth Grade Pupils in Selected Rural, Small Town, and Urban Schools of Eastern South Dakota." Unpublished Ed. D. dissertation, State University of South Dakota, 1959.

Sought to analyze status of independent reading as affected by sex, intelligence, and type of school, using a questionnaire approach with 1,251 sixth graders from both rural and urban schools in eastern South Dakota. The 640 boys and 611 girls were divided into slow, average and bright groups, according to IQ scores. Chi-square used to test significance.

Found that sex, intelligence and type of school influenced number of books read during summer. Sex differences influenced more than other two variables the reading interests reflected by fictitious annotated titles. Intelligence and type of school, but not sex, seemed to relate to (1) number of books read previous year, (2) number of books in home, (3) number of books owned by child, and (4) hours of televiewing per day. Sex and school type, but not intelligence, found related to number of comic books read per week. Sources for independent reading, most favorable among urban pupils.



68. GATTUSO, JOSEPH A. "An Evaluation of Curriculum Related Specialties in Grades Five and Six." Unpublished master's thesis, Boston University, 1957.

Sought to evaluate a variety of assigned curriculum-related activities as to their preparation and presentation in promoting growth in (1) independent study, (2) broadening interests, (3) positive social relationships, and (4) study skills. Worked with 137 fifth and sixth graders in 5 classes—1 below average, 1 above average, and 3 average in intelligence. Used a battery of inventories to collect data.

Found picture displays most popular; puppets, least popular.

69. LYNCH, MARGARET S. "Children's Ideas About Their Favorite Books." Unpublished master's thesis, University of California, Berkeley, 1958.

Sought to analyze children's reading interests and to determine the needs served by reading, as seen by children. Used questionnaire-interview technique with 230 children, 130 boys and 100 girls in grades 4, 5, and 6 in suburbs of San Francisco.

Found average number of books read to be five per month; three titles remembered by the child. Found reading peak for boys to be 10 years of age; for girls, 12 to 13. Girls averaged 6.6 books per month; boys 3.7. Found many books popular with children not on reading lists and unknown to teachers. Mark Twain most popular author.

70. MOODY, AURELIUS. "Special Library Projects in the Acceleration of Reading of Elementary School Pupils." Unpublished master's thesis, Chicago Teachers College, 1956.

Sought to accelerate growth in reading of 15 pupils in fourth grade by using activities designed to arouse interest and enthusiasm through individual and group guidance. Fifteen control pupils. Gave pre- and post-tests to both groups (Chicago Reading Test, forms C2 and C3).

Concluded that any method which challenges pupil's ability and has intrinsic interest for him will help in a reading program. Found library-centered activities, small group discussion and individual contacts "of value", but did not report results of testing.

71. POSTEL, HAROLD H. "Reading the Entire Book: An Experiment in Sustained Reading." *The Elementary School Journal*, vol. 58, No. 7, 389-390, April 1958.

Sought to evaluate the value of free reading. Seventy-two fifth graders allowed 30 to 40 minutes free reading per day over 5-month period. Books ranged in difficulty from third- to eighth-grade reading level, topics included science, biography, history, travel, and nature studies. No effort made by teacher to guide children's choice of subjects, but pupil had to read the entire book. Standardized reading test administered before and after study to measure reading growth.

Found average reading gain of 7 months for entire group which was 2 months more than most pupils gain under ordinary circumstances. Concluded that wide range reading is highly rewarding and is an aid to increasing understanding and building vocabulary.

72. ROSTER, ARLENE A. "An Investigation of the Relationship Between Interests and Socioeconomic Status of Children." Un-



published Ed. D. dissertation, University of Southern California, 1955.

Sought to find relationship between reading interests and socioeconomic status of fifth-grade children. Used occupational index to rank parents into three classes; used questionnaire to determine children's reading interests.

Found that socioeconomic class is greater influence than age, reading ability or IQ in determining reading interests; also a more significant determinant than sex. Lower-class interests were in areas concerning people, children, God and the Bible; upper class, in history, geography and true science; middle class, not particularly interested as a group in any area. Assumptions that fifth-grade children are interested in stories of animals, dogs, cats, horses and cowboys, not confirmed by study.

73. SHAUGHNESSY, URSULA A. "Free Reading Interests of Elementary School Children." Unpublished master's thesis, Chicago Teachers College, 1956.

Sought to determine the books children choose for their recreational reading. Used questionnaire with 306 pupils in grades four through nine from 10 classrooms in one Chicago school.

Found that both boys and girls prefer new books about modern activities. Current fads, e.g., "Davy Crockett" in 1956, greatly affected interests, but caused problems for librarians who sometimes acquired large numbers of books which soon fell into disfavor.

74. STANCHFIELD, JO MARTHA. "A Study of Boys' Reading Interests in Relationship to Reading Achievement." Unpublished dissertation, University of California, Los Angeles, 1960.

Sought to discover reading interests of boys in grades four, five and six. Conducted individual "depth interviews" of over an hour with 153 boys. IQ's ranged from 90 to 120. Two-way analysis of variance for 70 items in 50 interest categories and 20 characteristics.

Found six most preferred categories were outdoor life, explorations and expeditions, sports and games, science fiction, sea adventure, and fantasy. Least liked were art, family and home life, and poetry. Ten of 50 categories received significantly different rating by grade, but not achievement levels. Concluded that parents more important than teachers in determining reading interests and amount of reading done.

75. VANDAMENT, WILLIAM E. "An Investigation into the Reading Interests of Children." Master's thesis, published in *Journal of Educational Research*, vol. XLIX, 466-470, February 1956. Southern Illinois University, 1955.

Sought to determine whether children show a preference for certain types of reading fantasy. Tested 1,034 children in grades 6 through 10 in small and large towns and in rural communities in Illinois.

Found achievement type fantasy more prevalent in story books and magazines; social and aggressive types, in comic books. Girls more interested in social types; boys, in aggressive types. Choices not significantly different when compared on basis of socioeconomic levels and residence.

## Pupil Attitudes

76. EDWARDS, DONALD L. "The Relation of Concept of Reading to Intelligence and Reading Achievement." Unpublished Ed. D. dissertation, State University of New York, College of Education at Buffalo, 1961.

Sought to determine relationship of pupil's concept of "good reading" with his achievement in reading. Tested 379 pupils in 10 Lancaster and Kenmore, N. Y., schools. Developed a reading concept test.

Found very low, positive correlation between concept test and reading achievement, practically no correlation with intelligence. Correlation between IQ and reading scores for same children was .57.

77. GROFF, PATRICK J. "Children's Attitudes Toward Reading and Their Critical Reading Abilities in Four Content-Type Materials." Unpublished Ed. D. dissertation, University of California, Berkeley, 1955.

Sought to compare children's attitudes toward reading with their critical reading ability in four content-type materials. Tested 305 fourth and fifth graders with Thorndike's *Fictitious Annotated Titles Questionnaire*, Remmer's *Scale for Measuring Attitude Toward Any School Subject* and Tenenbaum's *School Attitudes Questionnaire*.

Found following factors related to critical reading ability, in following order: General reading ability, intelligence, attitude toward content-type stories, attitude toward reading as a school activity, chronological age, socioeconomic status and attitude toward school, classmates and teacher. Degree and importance of these relationships not given.

78. WIGGINS, THOMAS W. "Identifying Attitudes of Elementary School Students Toward Arithmetic and Reading Through the 'Reaction Story'." Unpublished master's thesis, Claremont Graduate School, 1955.

Sought to identify attitudes of elementary school students toward arithmetic and reading by means of "reaction story." Sought to determine usefulness of "reaction story" completed by child as diagnostic tool. Gave open-ended story and questionnaire to 39 middle-grade pupils.

Found children responded enthusiastically; technique conducive to immediate response and freedom of expression. Need for social acceptance and exchange seems important source of children's attitudes toward arithmetic and reading.

## Personal Adjustment

79. ABRAMS, JULES C. "A Study of Certain Personality Characteristics of Non Readers and Achieving Readers." Ph. D. dissertation. Published in *Dissertation Abstracts*, vol. 16, No. 2, 1956. Date completed: 1955.

Sought to study personality characteristics of nonreaders and achieving readers through use of WISC, Brown Personality Inventory, Social



Adjustment and Rorschack. Tested 50 children from third through seventh grade.

Found nonreaders to be more impulsive and to have more attention difficulties and poorer adjustment.

80. BOUISE, LOUISE METOYER. "Emotional and Personality Problems of a Group of Retarded Readers." *Elementary English*, vol. 32, 544-548, December 1955.

Sought to determine relationship of emotional and personality problems on reading retardation. Two hundred and four seventh graders were given the Metropolitan Reading Test and Pintner Non-Language Mental Ability Test. Established superior and retarded reading groups. Twenty-one of 30 retarded readers classified as behavior problems. Results of Detroit Adjustment Inventory indicated retarded readers felt less secure at home, as well as in school.

Found that better readers are not completely free of emotional disturbance symptoms. Found that poor readers frequently were characterized by serious adjustment problems. No conclusions regarding cause and effect.

81. BROWNSTEIN, JEWEL BROWN. "A Study of Children With Contrasting Records of Social Adjustment in Relation to Certain School, Home, and Community Factors." Unpublished Ed. D. dissertation, Indiana University, 1958.

Sought to determine relationship between well adjusted and poorly adjusted children as to several variables. Tested all sixth-grade children, 682 pupils, in Floyd County, Ind. Classified 29 as well adjusted and 23 as poorly adjusted.

Found that poor readers operate at lower levels of social adjustment.

82. CARUTHERS, GEORGIA K. "The Relationship Between Unfulfilled Emotional Needs and Progress in Reading." Unpublished master's of science, University of Tennessee, August 1956.

Sought to determine relationship between unfulfilled emotional needs and progress in reading among 114 eighth-grade pupils in Rockwood, Tenn. Gave Lorge-Thorndike, Iowa Basic Skills and Self-Portrait tests.

Found no relationship between emotional adjustment and reading achievement.

83. CHANSKY, NORMAN M. "Threat, Anxiety, and Reading Behavior." *Journal of Educational Research*, vol. 51, January 1958.

Sought to determine effect of induced stress or threat on reading speed, reading comprehension, and delayed recall of reading material.

Found an inverse relationship between anxiety and reading achievement. Anxiety enhanced relationship between immediate and delayed recall in the threatened group but impaired this relationship in the control group. Expectation that threat dissipates the relationship between reading under threat and reading under no threat was only slightly supported.

84. COPPLE, LEE B. "Motor Development and Self-Concept as Correlates of Reading Achievement." Unpublished Ph. D. dissertation, George Peabody College for Teachers, 1961.



Sought to determine whether self-confidence "born of average or superior athletic motor attainment gives child an approach reaction which generalizes to other areas of activity, including academic." Studied 102 fifth graders in a small town in Tennessee.

Found no support for hypothesis.

85. GIBBONS, ELIZABETH B. "The Effectiveness of Play Therapy in Improving Fifth Grade Reading Performance Impaired by Reaction to Academic Failure." Unpublished master's thesis, University of Washington, 1960.

Sought to determine effectiveness of play therapy in improving reading scores of 95 fifth graders.

Found that academic failure could not be traced as causal factor in poor reading, nor could play therapy be shown effective in raising reading scores.

86. HOLLAND, JACK M. "A Survey of Clinical Practices in Remedial Reading. Unpublished master's thesis, East Tennessee State College, 1961.

Sought to survey clinical practices in remedial reading. Sent questionnaire to 55 reading clinics (coverage and representativeness not indicated).

Found that majority of clinics lack personnel for identifying and treating adjustment problems of clients. Majority used one or more personality tests. Some counseling and psychotherapy given by most, and most sought to structure remedial situation and fit pupil and teacher in order to gain maximum advantages of therapeutic relationship.

87. LIPTON, AARON, and FEINER, ARTHUR H. "Group Therapy and Remedial Reading." *Journal of Educational Psychology*, vol. 47, No. 6, 330-334, October 1956.

Sought to determine value of group psychotherapy in reading improvement with nine, maladjusted poor readers who had not responded to regular remedial instruction.

Found substantial gains in reading after 4 months, although emphasis was placed on personal and social adjustment.

88. LUMPKIN, DONAVON D. "The Relationship of Self-Concept to Achievement in Reading." Unpublished master's thesis, University of Southern California, 1959.

Sought to determine relationship between individual's self-concept and his achievement in reading. Tested 251 pupils in eight fifth-grade classrooms in Salinas, Calif. Two "matched groups" of 25 pupils each were chosen from the extremes of reading achievement, following tests with California Test of Mental Maturity and California Achievement Tests. Later gave Gilmore Oral Reading Test, sociogram, Class Play Thinking, About Yourself, Sentence completion, SRA Achievement Series, and (completed by teachers) Haggerty-Olson, Wickman Behavior Rating Schedules A and B.

Concluded that self-concept is related to achievement in reading. Over-achievers manifest a more adequate positive concept, whereas under-achievers perceive themselves more negatively. Overachievers demonstrate greater proficiency in arithmetic language and in study habits. Teachers also view them as superior physically, intellectually,

socially and emotionally. They also are selected more frequently by peers for assistance with school work.

89. MARKOWITZ, EDITH L. "A Study of the Relationship of First Memories of Accidents and Reading Ability." Unpublished master's thesis, University of Southern California, 1956.

Sought to determine whether first memories of children with reading disabilities differ from first memories of average or superior readers especially first memories of accidents. Interviewed 188 fifth and sixth graders from three Los Angeles schools. Applied chi-square as test of significance.

Concluded that total personality of boys, and, possibly girls, with reading disabilities differs from total personality of children of average or better reading ability; that boys who are retarded in reading tend to recall accidents as first memories more readily, and that their memories contain fewer references to other people than do the first memories of boys who are average or good readers.

90. NORMAN, RALPH D., and DALEY, MARVIN F. "The Comparative Personality Adjustment of Superior and Inferior Readers." *Journal of Educational Psychology*, vol. 50, No. 1, 1959.

Sought to contrast the personality adjustment of superior and inferior readers by means of the California Test of Personality to determine whether any discriminating adjustment patterns differentiate good and poor readers. Tested 83 white, male, sixth-grade pupils; all, between 84 and 116 IQ on nonlanguage section of CTMM.

Found difference in total adjustment, but not in patterns of adjustment. Good readers were found to be better adjusted than poor readers.

91. SCARBOROUGH, OLIVE R., HINDSMAN, EDWIN, and HANNA, GENEVA. "Anxiety Level Performance in School Subjects." *Psychological Reports*, 425-430, 1961, 9. Southern Universities Press, 1961.

Sought to determine relationship between anxiety level and performance in communication skills (reading, language and listening) as compared with performance in science, social studies and arithmetic. Subjects were 162 seventh-grade boys and girls selected from approximately 1,600 seventh-grade pupils in four Texas school centers, selected on the basis of sex, intelligence (CTMM), and level of anxiety (Castenada Anxiety Scale).

Found that anxiety level is likely to make a difference in children's reading and language achievement when intelligence is a factor, and, when both sex and intelligence are factors. Found that these interactions were not present for science, social studies, arithmetic, or listening. Suggested need for replicating this study in other parts of the country and with different age group populations.

92. TIBBETTS, RICHARD. "A Study of the Relationship Between Self and Peer Acceptance with Rapid Learners." Unpublished master's thesis, Claremont Graduate School, 1958.

Sought to study relationship between self-acceptance and peer-acceptance in rapid learners. Eighty-three fourth graders tested with Ohio Acceptance Scale and separated into top 25 and bottom 25 were then



tested with a "Pupil Self-Evaluation" instrument used by Los Angeles County Schools.

Found a significant difference between two groups. Concluded that this difference supported Carl Rogers' thesis that self-acceptance essential for peer-acceptance.

93. **VERSACCI, CHARLES J.** "The Relationship Between a Modification of Personality Test Administration and the Personality Assessment of Readers." Unpublished master's thesis, September 1959.

Sought to determine differences in response to standardized personality questionnaire when read to fifth-grade pupils and when read by them. Tested 92 pupils from four classes in two schools with two forms of California Test of Personality.

Found improvement in personality profiles of both good and poor readers. High achievers tended to rate themselves as well adjusted regardless of the method of administration, which suggests that they may be less naive and more sensitive to underlying implications in the test items.

94. **WYNNE, ROBERT L.** "The Relationship Between Reading Ability and Personality Inventory Responses in Elementary School Children." Unpublished master's thesis, University of California, Berkeley, 1955.

Sought to study relationship between reading ability and responses on personality inventory. "How I Feel About Things" inventory given to 416 middle graders in Oakland, Calif. Complete data obtained for 219 pupils.

Found slight relationship between reading achievement and personal adjustment.

## Reading Skills

### Listening

95. **CHAFE, WARREN J.; SOLBERG, RONA, and WADE, MARY JANE.** "A Comparison of Imagery Evoked by Silent Reading With Imagery Evoked by Listening in Grades III, V, VI." Unpublished master's theses, Boston University, 1958.

Wade studied 50 third graders for 4 days to compare imagery evoked by silent reading with that evoked by listening.

Chafe carried out the same study with 24 fifth graders, and Solberg did the same with 38 sixth graders. These investigators developed four imagery checklists to administer alternately to two groups as a control factor. Findings differed:

Wade found (1) no significant differences between silent reading and listening imagery; (2) no difference as to clarity or permanence of the image evoked.

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Chafe abandoned the checklist and worked with only one group after

deciding the instrument was inappropriate for purposes of the study. He substituted an individual interview technique, but found little difference in images aroused by reading and listening.

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Solberg used same method as Wade, finding three facets for which imagery scores were significantly different: Auditory imagery higher in silent reading than in listening; more clear pictures from listening; more blurred pictures from reading. Total scores based on 15 factors were not statistically significantly different.

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Findings suggest need for more sensitive instruments for measuring imagery and better controls in presenting the listening material. More valuable educational implications might result from a controlled study involving good and poor readers matched on intelligence, age and sex and screened for vision and hearing.

96. EDGAR, KENNETH FRANK. "The Validation of Four Methods of Improving Listening Ability." Unpublished Ph. D. dissertation, University of Pittsburgh, 1961.

Sought to determine whether listening ability improves with training and to validate four training methods. Samples drawn from grades four, five and six, five groups of 47 children each matched for IQ and score on a listening test. Experimental design for groups: I—Exposition; II—Story; III—Vocabulary; IV—Analogies; V—Controls. Groups I and II subdivided into IA, IB, IIA, IIB, with B groups trained with materials "utilizing planned intervals of silence." Pupils encouraged to summarize during 3-second pauses. Ten half-hour tape recorded lessons. Post-tested after 8-week program.

Found listening ability improved significantly with any of four methods. Best method appeared to be analogies and word series, although prejudged by investigator as least similar to the listening test.

97. GRUSZYNSKI, MARY LAURIANA. "An Experimental Study of Functional Reading and Listening Skills in the Fourth Grade." Unpublished Ph. D. dissertation, Fordham University, School of Education, New York, 1957.

Sought to determine value of 7 months' instruction in listening skills and value of direct teaching of reading upon achievement in social studies. Tested 844 fourth-grade pupils of whom 424 were in experimental group.

Found statistically significant differences in favor of experimental procedures for all groups. Program described as experimental, however, involved simply good teaching methodology and was not clearly distinguishable from procedures employed with controls.

## Comprehension

98. BARNARD, MARYLINE. "Reading Disability and Levels of Perceptual Efficiency: An Experimental Study." Unpublished Ph. D. dissertation, University of Southern California, 1958.



Studied two groups of 25 fifth and sixth graders "almost identical with respect to age, the experimental group being inefficient readers and the control group being capable readers," to determine whether good readers were superior in perception of varying degrees of abstractness. Attempted to vary stimulus material from "an extreme of concreteness to an antithetical extreme of abstractness."

Found efficient readers superior in perception of abstract stimuli and generally superior in formation of abstract concepts. Found inefficient readers at least equal to superior readers in perception of concrete stimuli.

99. BRINKLEY, BARBARA A. "Comprehension Following Silent and Oral Reading In Grades Two and Three." Unpublished master's thesis, Boston University, 1960.

Sought to discover whether second- and third-grade children comprehended better from silent reading, from oral reading, or from silent reading followed by oral reading. Compared test scores for 1,212 pupils, 552 from grade two and 660 from grade three.

Found that both oral and silent-oral proved statistically significantly superior to silent reading alone at the second-grade level, but the silent-oral approach was significantly superior to both of the other approaches at the third-grade level.

100. BURATTI, ANITA. "An Evaluation of Exercises to Develop Organization Power in Grade Five." Unpublished master's thesis, Rhode Island College, 1957. Available on microfilm.

Sought to evaluate a program designed to improve reading comprehension through practice in organization skills at the fifth-grade level. Constructed workbook exercises for use with experimental group.

Found no statistically significant gains for experimental group in total comprehension ability, but significant gains in paragraph comprehension.

101. CAFARO, MARGARET D. "A Comparison of Aided and Unaided Recall Following Silent Reading." Unpublished master's thesis, Rhode Island College, 1958.

Sought to demonstrate that pupil achievement is higher on standardized tests than in classroom accomplishment. Tested four sixth grades, 130 pupils, with Metropolitan Achievement Tests and teacher-made tests.

Found multiple choice items "about three times easier for the examinee than unaided recall." Unaided recall results found closest to actual classroom achievement.

102. CHAMBERS, JOHN RICHARD, JR. "The Relationship Among Measurable Mental Tasks Related to Reading." Unpublished Ed. D. dissertation, Boston University School of Education, 1956.

Sought to find relationship among selected, measurable mental processes related to reading; organizational, elaborative and critical thinking. Tested 459 pupils in 24 fourth, fifth, and sixth grades in two small suburban communities within a 25-mile radius of Boston. Used CTMM (Elementary, Short Form), Gates Reading Survey, Test of Critical Thinking in Social Studies, and three tests developed at Boston University.

Found that children at each successive grade level show increasing amounts of ability on tests involving higher mental processes, that higher ability in one area does not indicate corresponding amount of skill in each of others, that reading ability bears positive relationship to higher mental processes, that mental imagery bears very little relationship to higher mental processes. Found that skill in elaborative thinking bears least consistent relationship to other higher mental processes. Critical thinking found to relate highest with reading ability.

103. CLARK, CHARLES MELVIN. "Teaching Sixth-Grade Students to Make Predictions From Reading Materials." Unpublished Ed. D. dissertation, University of California, 1958.

Sought to determine (1) whether sixth-grade students can improve in making predictions through use of materials designed to provide practice in this activity, (2) some relationships between intelligence, reading comprehension and vocabulary, (3) feasibility of self-explanatory materials containing principal components of complete lessons on making predictions, (4) pupil reactions to use of such materials, and (5) teacher evaluations of the experiment and materials used. Compared initial and post scores of 12 sixth-grade classes comprising experimental and control groups. Experimental group received 23 self-explanatory lessons on making predictions, while controls had lessons selected or prepared by their regular teachers.

Found statistically significant difference favoring experimental groups. Difference in mean gains on Gates Basic Reading Test (Reading to Predict Outcomes of Given Events) significant at 1-percent level. Analysis of variance disclosed that Gates test and experimental instrument measure predicting abilities relatively independent of ordinary comprehension and vocabulary.

104. GIVENS, MARY B. "The Effect of Training on Listening Comprehension on Reading Comprehension at the Third Grade Level." Unpublished master's thesis, Northwestern State College, Natchitoches, La., 1958.

Sought to measure effect of instruction in listening comprehension upon reading comprehension. Worked with 40 fourth-grade pupils in two classes.

Found some increase in reading comprehension attributable to experimental method; not statistically significant.

105. HAMPLEMAN, RICHARD S. "Comprehension of Listening and Reading Comprehension Ability of Fourth and Sixth Grade." Ed. D. dissertation, Indiana University, 1955.

Sought to compare reading comprehension with listening comprehension for group of fourth- and sixth-grade pupils. Tested 490 pupils in two Indiana communities.

Found listening comprehension superior for both fourth and sixth grades, with greatest disparities on easy materials. Length of passage apparently unimportant. Increase in mental age seemed to lessen difference between reading and listening comprehension.

106. HUGHES, WILLENE COLLMAN. "Interrelationship of Reading Skills." Unpublished master's thesis, Illinois State Normal University, 1960.



Sought to determine relationships among reading skills of sixth-grade pupils. Tested 125 pupils on reading comprehension, usage, capitalization, punctuation and vocabulary.

Came to the startling conclusion that "mechanics of reading have little significance on the reading comprehension of a pupil."

107. MAZURKIEWICZ, ALBERT J. "An Investigation of the Nature of Reading, Comprehension of Fifth Grade Children as Evaluated by an Unaided Record Test." Unpublished Ed. D dissertation, Temple University Reading Clinic, 1957.

Sought to determine nature of comprehension of fifth-grade children as measured by unaided recall reading test. Tested 154 pupils in Lehigh County, Pa. Used Kuhlmann-Anderson and CTMM intelligence tests and California Reading Test.

Found that group tests of verbal intelligence and general reading tests tend to measure common abilities. Concluded that verbal reasoning is common to both.

108. MCCULLOUGH, CONSTANCE M. "Responses of Elementary School Children to Common Types of Reading Comprehension Questions." *Journal of Educational Research*, vol. 51, 65-70, September 1957.

Sought to determine whether reading comprehension is made up of several measurable factors or a single common factor. Tested 84 first graders, 110 second graders, and 114 fourth graders in one Ohio city.

Found comparatively high intercorrelations between reading for main idea, for details, for sequence and "creative reading," but not high enough to "justify the idea of testing children by one type in order to discover their ability in all types." Concluded that children were able to think about story material in the four ways examined.

109. NUNES, AGNES ISABEL. "A Comparison of Recall Using Factual Study Guides Versus Elaborative Thinking Study Guides in Grade Four." Unpublished master's thesis, Boston University, 1959.

Sought to compare the value of factual guides with elaborative thinking study guides in eight fourth-grade classes in three Massachusetts schools. The study included 225 pupils and continued for 8 weeks, with each class using two factual guides and two elaborative guides.

Found that factual guides resulted in higher scores on immediate comprehension and, to a lesser extent, on delayed recall tested 2 weeks later; but the investigators believe other benefits (relation to previous knowledge and opportunities to use information) might make elaborative guides more valuable.

110. SHORES, J. HARLAN. "Reading Science Materials for Two Distinct Purposes." *Elementary English*, December 1960.

Sought to determine how sixth graders vary their approach to reading when the purpose is directed toward main ideas or toward keeping a series of ideas in mind. Tested 46 pupils.

Found good readers on one measure tended to be good readers on other measures. Concluded that tests of general reading ability were not necessarily good predictors of ability to read for specific purposes.

111. **TEAGUE, JOHN W.** "A Study of the Relationship Between Speed of Reading and Comprehension." Unpublished master's thesis, University of California, 1955.

Sought to determine effect upon comprehension of program to improve reading speed. Compared 62 pupils from two sixth grades in Oakland, Calif., divided into control and experimental groups during 15-week program. Experimental group met twice weekly for 30-minute lesson, while controls read independently in classrooms. Lesson involved timed exercises and skimming. Gates Basic Reading Test, Type A, Reading to Appreciate General Significance, and Type D, Reading to Note Details, given at start and end of program.

Found no statistically significant comprehension gains for experimental group, but some tendency for group to excel on tests with time limit. Concluded that speed of reading can be increased without a loss in comprehension.

112. **THARP, ADA L.** "Reading Comprehension and Retention of Sixth-Grade Pupils." Unpublished master's thesis, Illinois State Normal University, 1960.

Sought to determine value of preparatory questions as aid to comprehension and retention. Tested 46 middle-grade children.

Found differences favoring group receiving questions, but not statistically significant.

### Oral Reading

113. **BALANT, WILLIAM.** "A Study of the Errors and Difficulties in Oral Reading of Fifty-Eight Fifth- and Sixth-Grade Pupils." Unpublished master's thesis, East Tennessee State College, 1961.

Sought to analyze oral reading errors and other difficulties of 58 fifth- and sixth-grade pupils tested at East Tennessee State College Reading clinic.

Found most common comprehension error was inability to remember "how many"; next, "why." Errors in fluency primarily involved substitutions, repetitions and hesitations. Most common difficulties were inadequate word analysis ability, errors on easier words, inadequate phrasing and habitual repetition.

114. **BRUCE, RUTH L.** "An Analysis of Children's Plays for Material Suitable for Use in Oral Reading." Unpublished master's thesis, Boston University, 1958.

Sought to analyze plays for suitability in oral reading for grades four, five and six, using questionnaire approach with 1,800 pupils in 60 classrooms in eight Massachusetts communities. Duration of study—2 weeks. Computed percentages based on teacher and pupil opinions of plays.

Found types most consistently chosen to be exciting adventure mystery, humor, famous people and sports. Lowest choices were music and home and family. Favorite title was *The King's Toothache*. Interest in reading plays diminished steadily from grade four to grades five and six. Author suggests earlier introduction of more plays while interest is high, but



does not comment on possibility that flagging enthusiasm may result from satiation.

115. HOLTON, PATRICIA M. "A Survey and Analysis of Choral Reading as Used in Elementary Grades with Special Reference to the States of California, Oregon, and Washington." Unpublished master's thesis, University of Washington, 1958.

Sought to determine use of choral reading in elementary reading programs in California, Washington, and Oregon through a questionnaire approach.

Found "fluctuation in presentation and use of choral reading. Completely ignored in some systems to well-developed programs in a few."

116. NICHOLSON, ALICE. "A Survey of Pupil Interest in Plays Chosen for a Proposed Play-Reading Activity." Unpublished master's thesis, Boston University, 1955.

Sought to identify plays of high-interest value and to subject them to scrutiny of children in grades four and five to learn their preferences; also sought teacher opinions. Used checklist and preference sheets for 30 plays during 5-week survey involving 508 students and 19 teachers in 19 communities in five New England States.

Found oral play reading preferred to oral reading of a story by over 71 percent of children. Same number preferred listening to a play rather than hearing a story. Eighty percent preferred play reading as a group oral reading activity. Teachers considered vocabulary easy for fourth and fifth graders.

117. ROBECK, MILDRED C. "Analysis of the Responses of Pupils Classified as Retarded, Average, or Advanced Readers to Learning Situations Involving Oral Interpretations of Identical Story Material." 1951, University of California, Published in *California Journal of Educational Research*, May 1959.

Sought to analyze responses of retarded, average and advanced readers to learning situations involving oral interpretations of identical-story material. Presented material to 28 fourth graders in Seattle.

Found that advanced group clearly outperformed the less advanced, despite extra help from teacher, and that the average group outperformed the retarded groups. Concluded that reading levels based on standardized tests are highly indicative of both the reading rate and level of oral interpretation that might be expected of retarded, average, and advanced readers, but that tests designed specifically to assess silent reading ability are not useful in predicting ability to interpret implicit meanings.

118. RUNYAN, WILLIE MAE. "A Study of Choral Reading Values in a Fourth Grade Oral Language Project." Unpublished master's thesis, University of Tennessee, 1956.

Sought to find the value of choral reading. Worked with 34 fourth-grade children in Sevierville, Tenn. Procedure not given.

Concluded that supplementary oral language project improves reading skills and develops reading readiness.

119. STEWARD, MARTHA ANN. "A Study of the Effect of One Teaching Plan on Children's Enjoyment of Poetry in the Fourth

Grade." Unpublished master's thesis, Sacramento State College, 1959.

Sought to determine how enjoyment of poetry is affected by meaningful, detailed preparation for listening to a poem. Eight fourth-grade classes were matched as experimental and control groups as follows: Large urban, small urban, large rural and small rural. Pupil ratings of preference for poems were obtained.

Found method of presentation of less importance than selection of poems suitable for children's interests.

### Word Recognition and Analysis

120. CATTERSON, JANE HUNTER. "Inductive Versus Deductive Methods in Word Analysis in Grade Five." Unpublished master's thesis, Boston University, 1959.

Sought to compare inductive with deductive methods of word analysis in grade five. Studied 749 students for 10 weeks, using three lessons per week, in 17 schools of one Boston community: 267 in group A, 254 in group B, and 228 in control group. Inductive method concerned with practice in solving words in meaningful context; deductive, with applying formulas and rules. Instruction substituted for regular spelling lesson.

Found both experimental groups superior to controls in word-pronunciation ability and just as high in spelling achievement. Found inductive group superior in total reading achievement, and in speed of reading, vocabulary and word pronunciation. Found deductive group superior in recognition of homophones. Found both experimental methods more effective with poorer readers than with superior readers.

121. DEASY, JOHN PETER. "Word Analysis Skills in the Intermediate Grades." Unpublished Ed. D. dissertation, Boston University, 1960.

Sought to determine which word-analysis skills are emphasized at intermediate grades and their relationships to reading and spelling achievement, through analysis of workbooks and by administering especially constructed tests. Tested 298 pupils in fourth, fifth, and sixth grades of one community.

Found that factors could be separated as follows: Complex skills (pronunciation, spelling, homophones, and diacritical marks), simple skills (syllabication, accented vowels, and identifying sounds in spoken words), and word meaning skills (prefixes, suffixes, roots, vocabulary and comprehension). Found substantial variation from series to series in skills emphasized and practice provided for each.

122. DILLON, ELEANOR F., and KENSWIL, JOSEPHINE S. "A Comparison Between Word Analysis and Prompting in Oral Reading." Unpublished master's thesis, Boston University, 1959.

Sought to compare the value of immediate prompting with requiring the child to work out words for himself in oral reading. The study ran for 3 weeks in four classes totalling 160 pupils (grades not indicated)



in four Massachusetts communities. The children were rotated as to type of assistance given.

Found no significant difference in word recognition, word meaning or comprehension, but reported that the "immediate prompting" group read  $2\frac{1}{2}$  times as many stories as the group for whom unaided analysis was a requirement.

123. FARINELLA, JOHN T. "An Appraisal of Teacher Knowledge of Phonetic Analysis and Structural Analysis." Ph. D. dissertation, University of Connecticut, 1959.

Sought to discover extent of agreement among authorities as to the word-attack skills which should be taught and extent to which teachers have knowledge of skills on which authorities agree. Analyzed teacher's manuals of four widely used elementary basal series. Constructed test to appraise teacher knowledge of skills commonly stressed. Gave test to special group known to have knowledge of these skills and to sample of 394 teachers in the first six grades.

Found all four basal series contain comprehensive programs for teaching phonetic and structural analysis and "considerable agreement" concerning principles and skills to be taught. Special control group achieved mean score of 76.91 out of possible 84. Sample group, 43.97. Concluded that "an alarmingly large number of teachers showed a marked deficiency in their knowledge of phonetic and structural analysis skills . . ."

124. LEIDER, ALICE BLAKE. "Relationships of Visual Perception and Word Discrimination." Unpublished master's thesis, University of Chicago, 1955.

Sought to find possible relationship between some measures of visual perception and competence in recognition of word forms. Tested hypothesis that word perception and discrimination are dependent on ability to hold in mind a gestalt of the whole word while manipulating the letters. Tested two fourth-grade classes in Chicago.

Found that visual perception tests have correlation of .707 with measures of intelligence and that measures of "strength of closure" factor are more closely associated with word form perception at this level. Rejected hypothesis.

125. MCSPADDEN, BESS HINES. "A Survey of Fifth Grade Reading Teaching Practices in Four East Tennessee Counties." Unpublished master's of science, University of Tennessee, 1956.

Sought to determine practices in reading instruction in four east Tennessee counties. Questioned 46 fifth-grade teachers.

Found that teachers used primarily a question and discussion approach, with extra drill on word-attack skills and some provision for individual help when necessary.

126. MOCK, ASENATH B. "An Analysis of the Errors in Word Recognition of One Section Each of the Second Through Sixth Grades of Lynn Avenue School." Unpublished master's thesis, East Tennessee State College, 1957.

Sought to analyze errors in word recognition made by children from second through sixth grade in Elizabethton, Tenn. Gave three word recognition tests.

Found most errors due to inability to hear medial sounds in words, few errors on beginnings and endings in primary grades. Middle graders had difficulty with digraphs and silent letters.

127. RIVKIND, HAROLD C. "The Development of a Group Technique in Word Recognition to Determine Which of Four is Most Effective with Individual Children." Unpublished Ed. D. dissertation, University of Florida, August 1958.

Sought to compare four methods of teaching word recognition to determine most effective ones for individual children and for small groups. Five teachers worked for one school year with 183 elementary pupils, using four methods "under controlled conditions." Methods were visual, phonic, kinesthetic, and "combined method."

Found no significant differences. Concluded that "the group-teaching methods technique seems to be an effective instrument for teachers in determining the most effective method of instruction for particular children."

128. RETTKE, GORDON H. "The Effect of Syllabified Print on Four Aspects of Reading." Unpublished Ed. D. thesis, Indiana University, 1958.

Sought to determine effect of syllabified print on word pronunciation, speed and comprehension. Two-week study of 90 fourth, fifth, and sixth graders.

Found syllabified print increased word pronunciation for all groups except fourth grade. Special print increased speed and vocabulary of poor achievers, but lowered scores of good achievers on speed, vocabulary, and comprehension.

129. ROBERTS, RICHARD W., and COLEMAN, JAMES C. "An Investigation of the Role of Visual and Kinesthetic Factors in Reading Failure." *Journal of Educational Research*, vol. 51, 445-451, February 1958.

Sought to test three assumptions underlying use of kinesthetic methods in remedial reading cases: (1) That reading failures are deficient in visual perception, (2) that they are less efficient than normal readers in learning new materials when given only visual cues, and (3) that they are more efficient in learning new material when they use kinesthetic techniques. Experimental group of 27 reading failures compared with 29 normal readers on a test of visual perception acuity all subjects required to learn 20, three-letter nonsense syllables under two separate conditions: (1) Visual presentation alone (V) and (2) visual-kinesthetic presentation (V-K). Perception subtest of the Primary Mental Abilities Test administered following first testing period.

Found that control group had superior visual perception in areas measured by test. Concluded that reading failures are significantly lower than normal readers in visual perception acuity, that they are less efficient than normal readers when taught by visual methods alone, and that they learn more efficiently when kinesthetic elements are added to visual cues.

130. SCHAPER, JACK. "An Analysis of the Errors in Word Recognition Which are made by High Grade Mental Defectives."



Unpublished master's thesis, San Francisco State College, June 1958.

Sought to analyze errors in word recognition made by high-grade mental defectives. Tested 36 educable mentally retarded children in two special classes in Monterey, Calif. Children given 20 words to study; later given sentences to read aloud. Compared errors with those in Annette Bennett study of normal nonreaders to test hypothesis that errors would differ.

Found that many substitutions had neither beginning nor end in common with right word, more substitutions similar to right word in form than in idea.

131. SPENCER, DORIS URBANA. "An Evaluation of Word Study Skills in Grade IV." Unpublished Ed. D. dissertation, Boston University, 1958.

Sought to construct and evaluate lessons that combined independent-word analysis practice with meaningful response to new words analyzed. During 10 weeks, gave lessons to 10 experimental classes of 220 fourth-grade children in northern Vermont; 208 children comprised 10 control classes. Experimental group worked in teams with clarification lessons which took place of regular spelling period 3 days per week.

Found statistically significant gains (1 percent) for experimental group in word recognition, word analysis, visual memory of words, identifying sounds in words and recognition of homophones; superiority at 5 percent level of significance in reading achievement, vocabulary and reading speed, superiority apparent, but not statistically significant, in reading comprehension and spelling.

## Phonics

132. AARON, IRA E. "What Teachers and Prospective Teachers Know About Phonics Generalizations." *Journal of Educational Research*, vol. 53, No. 9, 323-330. May 1960.

Sought to determine what teachers and prospective teachers know about phonics generalizations. Gave a 5-option, 60-item multiple-choice test to 293 college students enrolled in courses in the teaching of reading.

Found that only 2 percent (10 students) scored 50 or more; only 27 percent (80 persons) scored 40 or more. Experienced teachers tended to make higher scores. Educational assignment or preference was not associated with performance, the upper-grade teachers scoring just as high as the primary teachers. Concluded that courses in teaching reading should give attention both to how to teach phonics and to the principles underlying phonics generalizations.

133. MORRONE, VICTOR EUGENE. "A Critical Analysis of Scientific Research in Phonics." Unpublished Ph. D. dissertation, University of Pittsburgh, 1958.

Sought to analyze and evaluate scientific research in phonics through 1957. Studied 198 references.

Found that 101 of 198 references were original phonics studies in reading and spelling. Concluded that studies revealed very little ir-

refutable evidence. Found disagreement as to approach and amount of phonics instruction. Found a significant relationship between phonics ability and reading achievement, also with spelling ability.

134. MULDER, ROBERT L., and CURTIN, JAMES. "Vocal Phonetic Ability and Silent Reading Achievement." *The Elementary School Journal*, vol. 56, 121-123, November 1955.

Sought to determine relationship between reading ability and the ability to fuse into words phonetic elements presented orally. Tested 63 fourth-grade pupils with Iowa Every-Pupil Test of Basic Skills, reading section. Tape recording of 78 one-syllable nouns were played so as to stress each phonetic element with a 1-second pause between each element. Pupils checked one of three possible items on an answer sheet.

Found a positive relationship between silent reading ability and ability to synthesize phonetic elements of words presented orally. Concluded inability to identify the stimulus words results from either failure to discriminate between speech sounds or ignorance of sound-letter association.

135. RUSSELL, D. H. "Teachers Views on Phonics." *Elementary English*, vol. 32, 371-376, October 1955. University of California, Berkeley.

Sought to determine teacher's views on the place of phonics in reading program. Obtained answers from 220 teachers in 33 States attending summer school at Columbia University, University of California in Berkeley and University of Oregon. Over 100 were primary and 85, upper elementary teachers.

Found most teachers teach phonics skills and believe in their value; that most favor heaviest emphasis in either second or third grade or where needed most by pupils; that most oppose separate phonics workbooks; that most teachers rely upon teacher's manual in the basic series for teaching helps; that most favor a combination of word-attack skills, including phonetic analysis; that most favor a balanced reading program with some emphasis on understanding and use.

136. STONE, IRWIN. "A Program for Improving Reading Among a Certain Group of Children in the Fifth Grade Using Phonetic and Structural Analysis." Unpublished master's thesis, Rhode Island College, 1956.

Sought to determine value of instruction in phonetic and structural analysis in reading improvement for 13 fifth-grade pupils in the lowest reading group in the investigator's class. Compared with 13 pupils from another class not receiving special instruction. Fourteen word analysis exercises used during 6 weeks of experiment.

Found experimentals excelled controls by 5 months on reading comprehension scores, by 1 month on vocabulary.

### **Library Usage Study Skills**

137. GAVER, MARY V. "Effectiveness of Centralized Library Service in Elementary Schools (Phase 1)." Report of research



conducted at the Graduate School of Library Service, Rutgers—The State University, in cooperation with the U. S. Office of Education under contract No. 489, SAE-8132, 1960.

Sought objective evidence to justify establishment of elementary school libraries. Developed instruments for evaluating elementary school library facilities and evaluated the programs in six schools. Six schools with a total of 404 sixth-grade pupils had common measure of educational achievement available at both fourth- and sixth-grade levels for current sixth grade. Schools fell into three categories: (1) Two with only classroom book collections, (2) two with central collections, but no librarian, and (3) two with school libraries.

Found that scope of use made of library materials was greater among schools in school library category, that pupil achievement was higher in schools with libraries; that amount of reading done by children had a direct relationship with the nature of library provision, but that school libraries seemed to have little or no bearing on either the purposes for reading or the number of interest areas reflected by reading.

138. HARMER, WILLIAM R. "The Effects of a Library Training Program on Summer Loss or Gain in Reading Abilities." Unpublished Ph. D. dissertation, College of Education, University of Minnesota, 1959.

Sought to measure effect of training in use of public library on loss or gain in reading achievement during summer months. Tested 190 fourth-grade pupils.

Found library training does not increase scores for basic vocabulary, reading to organize and to evaluate. It did increase scores in reading to retain information and to appreciate.

139. HOGENSON, DENNIS L. "The Effect of a Planned Reading Program Utilizing the Facilities of a Public Library on the Reading Achievement of 6th Grade Children." Unpublished master of science thesis, Mankato State College, 1959.

Sought to determine value of planned reading program for sixth-grade children using public library. Sixteen-week program for 25 experimental pupils; 25 controls. Tested with Gates Reading Survey.

Found experimental group achieved 40 percent greater gain in vocabulary, 145 percent greater gain in comprehension, and 141 percent greater gain in reading speed. Children chose wide variety of books, but mysteries and adventures were favorites for both sexes.

140. KELLEY, MARIE C. "An Evaluation of a Six Weeks Program for the Improvement of Library Skills." Unpublished master's thesis, Rhode Island College, June 1958.

Sought to determine value of 30 exercises in library skills administered during 6-week course in grade eight.

Found through subjective evaluation that pupils gained in ability to locate information, plus a desire to use library facilities.

## Vocabulary

141. AIKEN, LOYCE ROGERS. "An Experimental Study Showing The Effects of Semantic Variations on a Specified Group of Fifth Grade Students." Unpublished master's thesis, August 1958.

Sought to determine effect of semantic variations on one fifth-grade class in San Marcos, Tex., during a 6-week period.

Found children experienced difficulties because of multiple meanings.

142. BERENSMIER, ROSALINE SHELL. "Vocabulary Common to Six Intermediate Basal Readers." Unpublished master's thesis, Illinois State Normal University, 1960.

Sought to determine extent of common vocabulary in six basal readers.

Found percent of words common to the six decreased as grade levels went higher.

143. BERRY, MARY T. "A Study of the Vocabulary Load of Geography of Many Lands, A State Adopted Text for the Fourth Grade in Alabama." Unpublished Ph. D. dissertation, University of Alabama, 1961.

Analyzed vocabulary in *Geography of Many Lands*, adopted fourth-grade text in Alabama in a 3-year study. Compared nine samples of 5,153 running words from each of nine chapters with Dolch's First Thousand Words for Children's Reading, with Dolch's Basic Sight Vocabulary of 220 Words, with Dale's 3,000 Familiar Words, with Stone's revision of the Dale List of 769 Easy Words and Cole's *Handbook of Technical Vocabulary*. Also applied the Dolch, Dale-Chall and Spache readability formulas.

Concluded that vocabulary load "relatively heavy for average fourth grader," that functional vocabulary provided by standard word lists constitutes a "highly significant reading aid," and that readability formulas do not disclose all of the possible determinants of difficulty of textbooks, especially proper names and technical terms.

144. BOLLING, REXFORD W. "An Analysis of 1,392 Words That Retarded Readers Could Not Identify In A Silent Reading Activity." *Journal of Educational Research*, 543-548, February 1958.

Sought to compare the elements in words which are difficult for retarded readers, with words occurring in materials used at their assigned grade levels. Pupils from fourth, fifth and sixth grades met 40 minutes twice a week for 7 weeks.

Found no relationship between number of words on which child seeks help and his gain on test, when using free-reading technique. Found that letters *a*, *e*, *c* and *p* present greatest difficulty.

145. BULLOCK, JAMES EDWARD. "The Compilation of a Core Communication Vocabulary List and Its Evaluation in Terms of the Word Recognition and Spelling Abilities of Fourth Grade Children." Unpublished Ed. D. dissertation, Temple University Reading Clinic, 1956.



Sought to compile a communication core vocabulary list for fourth graders. Worked with 50 pupils in Philadelphia.

Found lack of agreement between words most frequently used by fourth graders in writing and in reading.

146. DIGESU, IDA. "The Selection of Two Samples of Entries From A to L In Webster's New Collegiate Dictionary By Two Methods and A Comparison of the Samples." Unpublished master's thesis, Claremont Graduate School, 1957.

Sought to derive two representative samples of a defined universe of words by use of different methods. Compared samples with each other and with Thorndike's 30,000 Words. Both samples drawn from A through L words in Webster's New Collegiate Dictionary. First sample included every hundredth entry. Second sample derived by using random-number table.

Found by "t" test that two samples were not significantly different. Concluded that these samples and Thorndike's list are from same universe.

147. LAWLESS, LILLIAN C. "An Evaluation of a Fourth Grade Program For the Enrichment of Vocabulary in Three Content Areas." Unpublished master's thesis, Rhode Island College, 1961.

Sought to improve fourth-grade vocabulary in three content areas. Investigator's class, experimental; coworker's class, control. Experimentals had 30-minute exercises daily for 6-weeks, covering words taken from social studies, science, and arithmetic.

Found that definite, specific instruction in word meanings resulted in significant gains for experimentals and that pictures helped to build concepts and clearer understandings.

148. NELSON, MARVIN NELS. "An Experimental Study of Three Methods of Vocabulary Instruction." Unpublished master's thesis, Brigham Young University, 1961.

Sought to determine best method of developing vocabulary. Compared three methods: (1) Students working individually, using word-meaning exercises; (2) Students in pairs, using word-meaning sentences, and (3) Students individually writing sentences. Tested 34 boys and 38 girls in middle grades with test constructed by investigator.

Found vocabulary growth through methods one and two significantly greater than through method three. Reliability of test not established; length of instructional period and description of three methods not given in report.

149. NORTH, FRANCES L. "Methods and Materials for Developing Children's Meaning Vocabulary." Unpublished master's thesis, Sacramento State College, 1961.

Sought to survey methods and materials for developing meaning vocabulary.

Found "multiple suggestions for teaching word-meaning skills at each level" in elementary school. Reproduced findings for use in El Dorado County, Calif., schools.

150. WILLIAMS, GERTRUDE R. "Vocabulary Size and Socio-

metric Status in The Intermediate Grades." Unpublished master's thesis, University of California, Berkeley, 1955.

Sought to study relationship between vocabulary size and social status in the classroom. Tested 202 fourth, fifth and sixth graders. Social status based on class choices for games, parties and social studies projects. Vocabulary, on Thorndike Test of Word Knowledge and California Vocabulary tests.

Found no consistent pattern with reference to variables.

151. WILLIAMS, MARY EVELYN. "A Comparative Study of The Vocabularies of Texas State-Adopted History Books for Fifth or Sixth Grade, 1955-59." Unpublished master's thesis, 1956.

Sought to compare vocabularies found in State-adopted history books for grades five and six in Texas.

Found that 2,335 of 3,085 total words occurred three times or less, of 2,208 proper nouns, 1,267 occurred three times or less.

## Educational Media

### Mechanical Devices

152. LEMLEY, LOIS M. "Using Machines to Aid Reading." Experimental, to see whether the use of the tachistoscope and the controlled reader (reading machines) improve speed and comprehension in reading. Schuylkill Avenue Building, School District of Reading, Pa., 1961.

Sought to evaluate use of machines in reading improvement. Two-year study with 31 fourth-grade pupils, using tachistoscope and controlled readers, in Reading, Pa.

Found only slight improvement in speed and comprehension attributable to machine use, but children showed greater enthusiasm and interest in reading. Concluded that gains were insufficient to warrant further experimentation or use.

153. WHEELER, ELEANOR L. "Contributions of the Controlled Reader to a Reading Instructional Program." Unpublished master of science in education, Drake University, 1957.

Sought to determine value of Controlled Reader and attitudes of teachers toward the device. Seventy fifth-grade children in Newton, Iowa were given training.

Concluded that good readers profit more than poor readers from group work. Found that teachers approved of the device.

### Television

154. HEIDEMAN, PAUL JOHN. "A Study of the Relationship Between Televiewing and Reading Abilities of Eighth Grade Stu-



dents." Unpublished Ph. D. dissertation, College of Education, University of Minnesota, 1957.

Sought to compare quantity of televising by eighth graders with reading ability. Tested random sample of 100 boys and 100 girls from five junior high schools.

Found a significant positive relationship between televising and reading among boys; not among girls.

155. HOWARD, ELIZABETH ANN. "A Study to Determine the Influence of Television on Fifth and Sixth Grade Students in the Public Schools of St. Cloud, Minn." Unpublished master's thesis, St. Cloud State College, 1960.

Sought to determine the influence of television on fifth- and sixth-grade pupils by means of questionnaire and daily log of TV viewing.

Found pupils in St. Cloud, Minn., watch TV an average of 2 hours per day and 12 hours per week. They preferred comedy, cartoons, and other children's programs. Nearly two-thirds of pupils read at least three books during month prior to the survey. Found no relationship between TV viewing and reading ability.

## Materials

156. BENBROOK, JOYCE. "Criteria for Writing Informative Material for Retarded Readers." *The Elementary School Journal*, 409-412, May 1956.

Sought to develop criteria for writing informative material for retarded readers in intermediate grades. Developed sample set of material, tried material on group of retarded readers, and evaluated material.

Found that 98 percent of pupils understood material and that over 90 percent expressed interest in what they had learned and a desire to know more about the subject. Concluded that her criteria provide useful guide in writing informative material for retarded readers.

157. HARRIS, ANNA S. "The Relationship Between Reading Progress and Materials Used in Grades IV, V, and VI.—A Comparison of the Effectiveness of Basic Readers versus Published High-Interest, Low-Vocabulary Materials on Reading Achievement and Attitude." Unpublished Ph. D. dissertation, New York University, 1962.

Sought to compare value of basal readers with high-interest, low-vocabulary trade books in reading-improvement program for poor readers in grades four, five and six. Forty pupils of normal intelligence, randomly placed in two groups, which were subdivided into four instructional groups by means of informal reading inventory. All groups had 57 instructional sessions. Evaluated by means of California Reading Test and Gilmore Oral Reading Test.

Found no significant difference between Groups I and II in either silent or oral reading ability. Concluded basal readers just as effective as high-interest materials for work with retarded readers.

158. HOFFMAN, LESTER E. "A Study in Providing Common

**Background Material on Canada at Two Levels of Reading Difficulty." Unpublished master's thesis, San Diego State College, 1957.**

Sought to determine practicability of rewriting social studies materials concerning Canada.

Found rewriting adult materials to a sixth-grade level difficult without omitting many concepts and colorful words.

**159. JACKSON, JOSEPH. "An Eighteen Week Evaluation of Reading Pilot Texts, Grades 4-6." Bulletin No. 492, Department of Testing and Instructional Research, Public Schools, Dearborn, Mich., September 1956.**

Sought to determine strengths and weaknesses of four sets of basal readers during an 18-week evaluation period in grades four, five and six in Dearborn, Mich. Worked out a very elaborate point system for rating Ginn, Houghton Mifflin, Lyons and Carnahan and Scott, Foresman on 37 different criteria.

Found great variations and a wide range of inconsistencies within the various series. Published findings as Bulletin No. 492.

**160. NEUMANN, SIDNEY S. "A Study in Providing Common Background Material on Canada at Two Levels of Reading Difficulty." Unpublished master's thesis, San Diego State College, 1957.**

Sought to rewrite adult materials about Canada to a sixth-grade difficulty level.

Concluded that more texts of the type produced are needed.

**161. PARKER, DON H. "Improving Reading and Study Skills in Secondary Schools Through Greater Individualization of Instruction by the Use of Multilevel Materials." Ed. D. dissertation, Columbia University, 1957.**

Sought to develop and test the value of multilevel materials in the regular classroom. Conducted controlled experiment with 15 teachers and 415 seventh graders in five schools.

Found that 130 students in the multilevel program made statistically significant gains over a matched group instructed with a single level of materials, the latter improving no more than a matched control group which received no special help in reading.

**162. SAXTON, HARVEY L. "An Investigation of the Value In Basal Reading Materials for Superior Readers." Unpublished Ph. D. dissertation, The University of Connecticut, 1957.**

Sought to determine whether basal reading program should be omitted for children reading significantly above their actual grade placement. Gave Stanford Reading Test to 198 beginning fifth graders. Constructed skills test based on McKee fifth-grade basal reader.

Found 166 superior readers. Concluded that they had sufficient mastery of skills measured by informal test. Majority of superior readers enjoyed basal reader stories. Concluded superior readers should be permitted to omit basal reader materials, but that deficient skills should be taught through some other medium.

**163. SCHOENBERG, CARL. "A Study of Selected Sixth Grade**



**Readers 1900-50."** Unpublished master's thesis, University of Southern California, 1956.

Sought to analyze nine basal series by three publishers, embracing period from 1900 to 1950, for (1) physical features, (2) content, and (3) adaptation of material to pupil's levels.

Found that number of readers in a series has increased steadily; that overall page length is greater, but proportion of print per page less; that trend has been from an introduction to literature to the meeting of developmental needs of pupils; that style has moved from strongly expository to "strong technique"; that writers were formerly professionals writing for adults, but are now specialists from 7.915 in 1895 to 5.428 in 1951; that readability has increased primarily because of shorter sentences.

**164. SMITH, MILDRED M.** "An Analysis of Stories in Basal Readers with Cultural Settings Outside Continental U.S." Unpublished Ed. D. dissertation, Indiana University, 1959.

Sought to analyze the portrayals of life outside the United States as revealed by basal readers. Studied all the readers published in 1957 for grades 1 through 6; assisted by 404 persons, who read a story or stories about a culture in which they had lived.

Found 406 stories about other contemporary cultures. Concluded that basal reader stories of other cultures were inaccurate in factual information, realism and time concepts.

**165. WHITE, VIRGINIA L.** "An Analysis of Reading Workbooks for Grades Four, Five and Six." Unpublished master's thesis, Boston University, 1957.

Analyzed 15 reading workbooks for grades four, five, and six to determine relative emphasis on certain reading skills.

Found the following skills most important on basis of number of practice exercises devoted to them: (1) Summarizing and organizing to aid memory, (2) interpreting main idea, (3) using pictures, diagrams, maps and dates, (4) using context clues to determine word meanings, (5) making judgments, drawing conclusions, (6) visual-auditory perception of consonants and vowels, (7) of syllables, (8) using context to select proper definition and pronunciation, (9) recognizing story problem or plot, (10) careful scrutiny of word form as aid to recognition.

**166. WILLIAMS, GERTRUDE H.** "Provisions for Critical Reading in Basic Readers." *Elementary English*, vol. 26, No. 5, May 1959.

Sought to determine extent to which basal readers provide critical thinking experiences. Analyzed 80 books representing preprimers through grade six from 10 basic series.

Found 136 thinking abilities which were grouped within 33 critical reading skills. Only three skills appeared in all 10 series. Largest number of skills in single series was 24; smallest, 11. Concluded that some important thinking skills are neglected or treated lightly and that comprehending and using language for critical thinking is not receiving adequate stimulation in the average elementary classroom.

## Readability

167. ALLIAS, MARCUS THOMAS. "The Reading Difficulty of A Selected Set of Leading Mass Magazines." Unpublished Ph. D. dissertation, University of Pittsburgh, 1956.

Sought to determine reading difficulty of a selected set of leading magazines. Used Yoakam Readability Formula.

Found that most of the magazines fell within 10- and 11-grade difficulty levels. Median difficulty was 10.8, one-tenth point less than the 10.9 median educational age for major occupation groups. Several popular sports and fiction magazines suggest that the wage earner is capable of reading beyond his educational age.

168. BAKER, IRVING D. "Education, Theory and Practice: An Evaluation of the Simplified Classics." Unpublished Ph. D. dissertation, University of Pittsburgh, 1960.

Sought to measure changes effected by rewriting and adapting classics, such as *Treasure Island* and *Tale of Two Cities*. Fifty-two adaptations of 18 originals and 18 original classics were rated by Flesch and Yoakam readability formulas.

Found that Yoakam formula rated difficult books as more difficult and easy books as easier than did Flesch formula, which tended to reveal a clustering around the mean. Originals rated from 6.2 to 9.6 by Flesch; 6.9 to 12.1 by Yoakam. Flesch scores ranged from 4.6 to 8.2 for adaptations; Yoakam, from 3.5 to 10.8. No significant correlation found between reading difficulty level of an original and its adaptation, but a high degree was found between relative length of an adaption and its degree of plot retention.

169. BASTING, ISABEL. "A Readability Study of Supplementary Social Study Books." Unpublished master's thesis, Illinois State Normal University, 1960.

Sought to determine readability level of 30 supplementary books used in social studies in intermediate grades. Used Dale-Chall and Flesch formulas.

Found greatest divergence in readability at fourth-grade level.

170. GLOTT, RALPH. "An Investigation of the Verbal Matter in Recently Published Arithmetic Textbooks and Workbooks for the Intermediate Grades." Unpublished Ed. D. dissertation, University of Pittsburgh, 1955.

Sought to determine readability levels of recently published arithmetic textbooks and workbooks for intermediate grades. Tried to find extent of gradation within materials for grades four, five and six. Used Yoakam Readability Formula.

Found 11 percent above grade range, 44 percent within, and 45 percent below. Verbal matter in problem solving found most difficult. No evidence of progressive rise in difficulty. Concluded that care is needed in introducing and teaching technical words, even though they may be "easy" words.

171. HAFFNER, HYMAN. "A Study of Vocabulary Load and Social-Concept Burden of Fifth and Sixth Grade Social Studies,



**History and Geography Textbooks." Unpublished Ph. D. dissertation, University of Pittsburgh, 1959.**

Sought to analyze selected publisher-designated fifth and sixth grade-social studies, history, and geography textbooks to compare reading grade level, vocabulary load and social-concept burden. Used Yoakam Readability Formula, Thorndike rating and opinion of panel of experts as criteria.

Found less vocabulary difficulty in sixth-grade books provided by National Council of Social Studies. Concluded that both fifth- and sixth-grade books contain excessive vocabulary loads and concept burdens. Found social-concepts burden greater in sixth-grade books.

**172. HOLLINGSWORTH, GLEN HOWARD. "The Readability of Ohio Reading Circle Books." Unpublished Ed. D. thesis, University of Pittsburgh, 1956.**

Sought to determine readability (vocabulary load) of Ohio Reading Circle books selected for grades four through eight. Analyzed with Yoakam Readability Formula.

Found median difficulty to be 7.9; highest, 13.1; lowest 3.7, range being 9.4 years. Less than one-fifth the books placed in their corresponding reading difficulty level by Yoakam formula. Concluded that Ohio Reading Circle books reasonably well placed for grades seven and eight, but that not enough readable books available for grades four, five and six.

**173. HUMBERT, LERÓY G. "The Readability of Selected Science Textbooks in Grades IV, V and VI as Determined by the Lorge Readability Formula." Unpublished master's thesis, St. Cloud State College, St. Cloud, Minn., 1960.**

Sought to determine readability level of selected science books for grades four, five, and six in Minnesota public schools. Tested books from six publishers with Lorge formula.

Found grade six science books written below grade level; Scott, Foresman books easiest; less than year's difference between grade four and grade six characteristics of all books; average difference between extremes within same book, 2 years; all grade four science books, too hard for fourth graders.

**174. O'CONNER, BESS P. "Readability of Certain Current Magazines and Newspapers." Unpublished master's thesis, Illinois State Normal University, 1959.**

Sought to determine readability of current magazines and newspapers. Compared advertisements with feature sections of magazines. Compared front, editorial, society and sports pages of newspapers. Analyzed 25 magazines and 30 newspapers from different areas of United States. Used Dale-Chall Formula.

Found certain sections of both media to be written on easy readability levels. Suggested they be used as supplementary reading materials for low achievers.

**175. SCHWAB, RAMONA B. "Determining the Readability of Social Studies Textbooks at the Fifth Grade Level." Unpublished master's thesis, San Diego State College, 1956.**

Sought to study readability of 10 social studies texts for fifth grade. Rated with Dale-Chall and Flesch formulas.

Found books were on sixth- and seventh-grade difficulty level according to Flesch formula, whereas Dale-Chall rated at fifth- and sixth-grade difficulty level.

## Educational Practices

### Grouping

176. AARON, I. E., GOODWIN, FRANCES, and KENT, VANDA. "Fourth Grade Teachers Experiment with Cross-Class Grouping for Reading Instruction." *Elementary English*, vol. 36, 305-07, May 1959.

Sought to determine the effectiveness of "cross-class" grouping in three fourth-grade classes of Chase Street School in Athens, Ga. Reading was scheduled for 1 hour each morning, and the 107 pupils were assigned to six reading levels, two groups to each teacher. Levels, according to the California Reading Test, ranged from 2.6 to 7.6.

Found after 6 months that the average gain was 10 months, with individual growth ranging from 1 month to 2.7 years. Teachers recognized the influence of the "Hawthorne effect," but concluded that cross-class grouping was more effective than within-class grouping.

177. BATTY, DOROTHY B. "Comparison of Individual Paired Practice at Pre-Primer Level." Unpublished master's thesis, Boston University, 1959.

Sought to compare individual instruction with paired workbook practice at the preprimer level, using 150 pupils from six first-grade classes. Length of study not indicated, but pupils divided into experimental and control groups of three classes each, the experimental group working in pairs.

Found that results of the experiment were clearly in favor of the paired approach.

178. BEACON, ROBERT. "Homogeneous Grouping of Elementary Children in Reading." Unpublished master's thesis, University of Southern California, 1961.

Sought to prove effectiveness of homogeneous grouping for reading instruction for 102 fifth-grade children.

Found that experimental group gained 2.8 years in reading skill during 1.7 years of instruction; that girls made higher scores, but boys made slightly greater gains. No results presented for control group. Concluded that results suggest superiority of experimental approach, while acknowledging inconclusiveness of the evidence.

179. BRUNETTO, ELIDIA. "Reading Groups in the Elementary Classroom." Unpublished master's thesis field study, San Francisco State College, 1958.



Sought to investigate the problems beginning teachers are most sensitive to concerning grouping, and to help these teachers understand the purposes, problems and techniques of group teaching. Number of teachers not indicated in report. Interviewed experienced and beginning teachers.

Found grade one and two beginning teachers most concerned about getting children settled, handling interruptions, finding profitable seat-work, making right group assignments, lack of time for preparation and need for good workbooks. Found grade four and five beginning teachers most concerned about work habits, lack of pupil independence, need for suitable workbooks, need for library space and for supplementary reading materials, and working with child who fits none of groups.

180. CHAPMAN, LAWRENCE L. "A Study of the Effectiveness of Teaching Reading in a Seventh Grade Block Program." Unpublished master's field study, San Francisco State College, June 1959.

Sought to determine effectiveness of reading instruction in seventh-grade block program in Richmond, Calif. Tested 75 students in three classes with CTMM, Iowa Silent Reading (CM in September 1954, and another form at end of school year).

Found that all classes made significant gains in reading; did not compare with any expected improvement level.

181. FERRELL, RACHEL B. "An Experimental Reading Program in Grades 5 and 6 in the Buffalo, Minnesota Elementary School." Unpublished master's thesis, St. Cloud State College, 1959.

Sought to determine growth in reading shown by fifth and sixth graders grouped according to reading achievement. Compared results of tests given in 1957-58 with those given in 1958-59. No controls.

Found significantly greater gains for both groups during second year when grouped "homogeneously."

182. HART, RICHARD H. "The Effectiveness of an Approach to the Problem of Varying Abilities in Teaching Reading." *Journal of Educational Research*, vol. 52, No. 6, 228-231, February 1959.

Sought to evaluate the effectiveness of grouping children as a means of adjusting reading instruction to varying abilities. Fourth, fifth, and sixth graders were given the reading battery of the California Achievement Tests, the Durrell-Sullivan Intermediate Reading Survey, and the 1950 California (Short-Form) Test of Mental Maturity. Pupils assigned reading placements ranging from primer to seventh grade. Pupil achievement in reading after 1 year under experimental program compared with pupil achievement under regular program.

Found reading achievement under experimental program significantly greater than under regular program. Concluded that study gave strong support to the proponents of ability grouping.

183. KOGUT, SOPHIE BALICKA. "An Evaluation of the Joplin Plan in an Industrial Community." Unpublished master's thesis, Rhode Island College, June 1961.

Sought to determine gains made by 827 pupils involved in Joplin Plan in an industrial community. Grades four, five and six in Woonsocket, R.I., tested in fall and spring with California Reading Test.

Found brighter children made more progress than those with low IQ's. Concluded that the program was valuable.

184. LEMLEY, LOIS M. "Grouping by Reading Ability for Reading Classes Only." Reading, Pa.: Amanda E. Stout School, School District of Reading.

Sought to determine value of homogeneous grouping just for reading. Twenty-eight teachers and 868 pupils in grades one through six in one school building. Pupils divided into groups ranging from readiness through grade 10, but kept with own grade and age levels.

Found healthier classroom climate. Improvement shown by test results, teacher judgments and children's attitudes.

185. MCHUGH, WALTER J. "Team Learning in Skills Subjects in Intermediate Grades." *Journal of Education*, vol. 142, 22-51, December 1959.

Sought to initiate and evaluate methods for adapting instruction in the intermediate grades to the learning needs of children in reading, arithmetic, spelling, and language. Research team set up workshops and inservice programs for teachers in Dedham, Mass. Teachers received instruction in grouping children and attended demonstration lessons.

Found after 1 year in 35 intermediate classrooms that differentiated instruction in grade four produced statistically superior results over the previous year only in spelling; in grade five, in all subjects except reading; in grade six, in all subjects except spelling and arithmetic.

186. PARKS, LILA D. "The Effectiveness of the Joplin Plan for Teaching Reading in the Braunfels Lone Star Elementary School." Unpublished master's thesis, Southwest Texas State College, August 1960.

Sought to evaluate use of Joplin Plan in New Braunfels Lone Star Elementary School (Texas) during 2-year trial period. Tested all pupils in nine classes and compared with school records during 5-year period.

Found Joplin Plan "at least as effective as previous conventional program." Not all pupils profited under program, but it seemed "effective as a remedial reading program substitute."

187. POLLACH, SAMUEL. "Meeting the Individual Reading Needs of Children in the Intermediate Grades." Unpublished master's thesis, University of California, 1959.

Sought to study program which combined efforts of intermediate grade teachers to work with ability groups in reading. Involved 235 children in Downy, Calif., grades four, five, and six. Eight reading groups formed. Same period daily for reading.

Found gains from .5 to 1.4 years for period from February to June.

188. RAYMOND, MARGARET G. "An Investigation of Homogeneous Grouping for Reading Versus Grouping Within the Classroom." Unpublished master's thesis, San Diego State College, 1956.

Sought to compare ability grouping with grouping within the class-



room. Tested 74 fourth graders (control group) and 41 fourth graders (experimental group) with California Reading Test before and after experiment.

Found no significant difference, but concluded brighter children achieve better under homogeneous arrangement. Said teachers favored homogeneous plan.

189. SCARBOROUGH, G. C., BRUNS, RICHARD G., and FRAZIER, ALEXANDER. "Improvement of Reading Through Ability Level Assignments." *School Review*, vol. 65, 474-480, Winter 1957.

Sought to evaluate an experimental program in reading development. Three beginning eighth-grade sections at Sidney Lanier Junior High School in Houston, Tex., selected as experimental groups. Iowa Silent Reading Test, Form AM, administered in September 1955 to determine reading level of each student. Classes then received instruction for two semesters while those who scored below a grade level of 6.4 were given special instruction in a remedial-reading class. A full reading program was carried out in English, social studies, and science classes. Student improvement in reading ability measured at end of school year, May 1956, with the Iowa Silent Reading Test, Form CM.

Found median reading score in Section A showed overall increase of 1.8 grade levels, Section B class median increased by 1.8 grade levels, and Section C advanced 2.2 grade levels. These statistics based on designation of a score of 8 as "grade level" for group at beginning experimental period and a score of 9.8 as "grade level" at time of second reading test in May. Concluded that remedial techniques in the regular classroom can produce significant improvement.

190. TELFER, DOROTHY W. "Organization of An Elementary School for the Reduction of Reading Retardation." Unpublished master's thesis, San Diego State College, 1957.

Sought to determine usefulness of varying the organization of elementary school for reading instruction.

Found separate classes for retarded readers a useful procedure, also acceptable to parents.

191. TUGGLE, LORRAINE C. "A Survey of the Judgements of Elementary Teachers-In-Service on Grouping for Reading and Language Arts Instruction Enrolled at DePaul." Unpublished master's thesis, DePaul University, August 1959.

Sought to determine the opinions of 100 teachers enrolled at DePaul University concerning grouping for reading instruction. Teachers answering questionnaires were predominantly women teaching in parochial schools.

Found that 40 favored flexible grouping. Only one-third used supplementary materials. Groups had little or no choice in selecting materials.

### Individualized Reading

192. GREENMAN, RUTH, and KAPIKIAN, RUTH. "Individual Reading in Third and Fourth Grades." *Elementary English*, vol. 36, 234-37, April 1959.

Sought to determine value of individualized reading program for third- and fourth-grade children in Wyandanch, N.Y. Twenty-seven children in each class followed a self-selection plan. Individual conferences were from 3 to 7 minutes long. Small group instruction in skills.

Found "better than average gain in reading ability." Range in reading scores greater than for control groups.

193. GRESHAM, LAVERNE P. "An Experimental Study of the Efficacy of Individualized Teaching of Reading in Comparison to the Basal-Textbook Method." Unpublished master's thesis, Northwestern State College, 1960.

Sought to compare basal reader approach with individualized reading. Tested 71 middle-grade pupils in 4-month program.

Concluded individualized approach more efficient and economical and that it produced more gains in pupil achievement, attitudes and interests, but did not make any statistical comparisons.

194. GRIFFEY, DOROTHY. "The Effectiveness of an Instructional Program in Reading Emphasizing Individual Differences and Needs." Unpublished master's thesis, University of Tennessee, 1957.

Sought to determine effectiveness of program in reading emphasizing individual differences and needs in a Knox County, Tenn., fifth grade. Tested 31 fifth graders with the Metropolitan Achievement Test, the Otis Self-administering Test of Intelligence and a sociogram.

Found evidence of social and emotional growth. Found that seven retarded readers made gains of from 4 months to 2½ years.

195. HART, JOHN D. "A Study of an Individualized Reading Program in a Sixth Grade." Unpublished master's thesis, Cornell University, 1959.

Sought to evaluate individualized reading program for sixth-grade class of 27 pupils.

Found program did not benefit all pupils equally. Good study habits seemed a necessary prerequisite. Concluded individualized reading to be complex, time consuming, demanding wide variety of materials and experienced, capable teacher.

196. JOOS, LOYAL W. "An Investigation of An Individualized Approach for Teaching Reading in Elementary School." The Committee on Individualized Reading, Board of Education of Baltimore County, Md., 1960.

Sought to determine effectiveness of individualized reading in Baltimore County, Md., from September 1959, to June 1960. Compared three approaches: Basal reader, individualized reading, and a combination of the two. Eighteen teachers in grades four, five, and six in four elementary schools were involved, six classes assigned to each of the conditions. Class size ranged from 23 to 43 pupils, the mean size being 35.

Found no statistical differences between the groups on accuracy, comprehension and speed. Concluded that individualized reading was inferior to the other two approaches for developing study skills, that individualized and basal-reader approaches were superior to the com-



bination method in developing vocabulary. Felt that both teachers and pupils favored both the experimental methods over the purely basal-reader approach.

197. MANNING, JOHN CHARLTON. "Evaluation of Growth in the Content Subject Areas of Literature, Social Studies and Science in a Program of Individualized Instruction." Ed. D. dissertation, Published in *Journal of Education*, vol. 142, No. 2, 52-65. December 1959. Boston University, 1960.

Sought to evaluate growth in literature, social studies and science occurring in individualized instructional program. Studied 1,188 fourth, fifth and sixth graders in 1957-58 and 1,174 during 1958-59 in Dedham, Mass. Twenty-three control classrooms limited to those in which same teachers taught both years.

Found slight differences favoring individualized groups on both social studies and literature achievement for both fifth and sixth grades. In history, the control groups excelled. Concluded that experimental teachers utilized new techniques and procedures, that pupils worked together efficiently in teams and that parents "accepted teacher practice changes."

198. PIRSIG, ELSIE A. "A Study of the Individualization of a Reading Program to Meet the Needs and Interests of a Specific Group of Sixth Graders." Unpublished master's thesis, Mankato State College, 1959.

Sought to evaluate individualized reading program for one sixth-grade class of 27 pupils in comparison with 90 control pupils in four other groups. Gave Gates Basic Reading tests to all. Experimental group had special reading corner and bulletin board stressing reading.

Found "children taught by individualized methods made better progress," but gave no information concerning test scores or controls employed.

199. SAFFORD, ALTON L. "An Evaluation of the Individualized Reading Program in the La Canada Elementary School District." Unpublished master's thesis, University of Southern California, 1958.

Sought to evaluate an individualized reading program in the La Canada (California) Elementary School District by studying 183 pupils in 7 classes, "fourth grade and above."

Found individual gains ranging from 2.7 years to 4.1 years; only 27 percent of pupils gaining a full year or more, in comparison, with 62 percent of pupils in the traditional three-group method. Concluded that, except for children of superior intelligence, the individualized approach is inadequate and that its proponents possess a strong emotional bias.

### Comparative Studies

200. CAUSEY, MARJORIE E. "A Comparative Study of Reading Growth: Enriched Versus a Limited Program of Instruction." Unpublished Ed. D. dissertation, Indiana University, August 1957.

Sought to compare achievement under an enriched versus a limited program of instruction in reading. Tested 996 third- and sixth-grade pupils with CTMM and with Iowa Every-Pupil Test of Basic Skills. Matched groups. Half of them provided with wide range of materials; half limited to one basal reader and workbook.

Found both vocabulary and work-study skills higher in enriched program.

201. CUTTS, WARREN G. "A Comparative Study of Good and Poor Readers at the Middle Grade Level." Ph. D. dissertation, Syracuse University, 1956.

Sought to determine factors influencing reading achievement among children of similar intelligence, educational experience, age, and sex, whose reading performance differed by at least 1 year. Used matched pairs technique, testing 72 pairs of children matched by their teachers, plus 80 other children in an effort to find a more even match for a child already designated by his teacher. Used California Test of Mental Maturity and Wechsler Intelligence Scale for children to match each pair within 10 IQ points. Narrowed subjects to five closely matched pairs. Conducted long, taped interviews with parents and children. Gave projective tests and extensive reading tests, both standardized and informal, to subjects; tested reading-ability of parents.

Found only one personality trait that clearly distinguished good and poor readers: Good readers were consistently more independent in their day-to-day relationships; poor readers disclosed dependent personalities. Sibling rivalry seemed a potent influence in lives of poor readers. Superior readers were not better adjusted socially or emotionally. Parents of good readers read no better than the parents of poor readers. Parental attitude and amount of encouragement seemed to influence personality traits as well as reading achievement; overstimulation by parents, more characteristic of good readers.

202. DUNPHY, SISTER MARY HILDEGARDE, C.S.M. "A Comparison of the Reading Achievement of Sixth Grade Urban and Non-Urban Pupils in the Catholic Schools of the Providence of Newfoundland." Unpublished master's thesis, The Catholic University of America, 1956.

Sought to determine whether sight reading has really deteriorated and rural sixth graders and between girls and boys in Catholic schools of Newfoundland Province. Gave Kuhlman-Finch Intelligence Test and Stanford Reading Test to 590 sixth graders in 6 urban and 23 nonurban schools.

Found urban children read significantly better, but found no significant difference in reading performance of boys and girls.

203. KOPPEN, CLETUS. "The Comparison of the Reading Ability of Sixth Grade Boys with the Sixth Grade Boys of Fifteen Years Ago." Unpublished master's thesis, Catholic University of America, July 1958.

Sought to determine whether "sight" reading has really deteriorated over the years for boys in Dubuque, Iowa. Gave Iowa Silent Reading Test to 100 junior high school boys in 1958 and compared with test scores of 74 boys tested in 1944.



Found no significant differences, although 1958 boys seemed to have a slight edge.

204. LANDRY, THOMAS R. "Improving Reading Instruction in the Intermediate Grades Through Participation in a Specially Planned Supervisory Program." Unpublished Ph. D. dissertation, Louisiana State University, 1956.

Sought to compare achievement of 408 middle-grade pupils in Avoyelles parish in Louisiana under planned in-service supervisory program with typical program. Paired pupils for age, schooling, reading grades, achievement scores and intelligence.

Found special program favorably affected teaching and learning in experimental groups.

205. MILLER, VERA V., and LANTON, WENDELL C. "Reading Achievement of School Children—Then and Now." *Elementary English*, vol. 33, 91-97. February 1956.

Sought to compare reading achievement of pupils in 1958 and 1954 with pupils of 1933 and 1934 in Evanston, Ill. Test results of 1,824 pupils on the 1933 editions of the Metropolitan Achievement Tests for third and fifth grades and the New Stanford Achievement Tests for eighth grade were tabulated.

Found that present-day pupils attending Evanston schools at primary, intermediate, and junior high school levels read with more comprehension and understand meaning of words better than children enrolled in same grades and schools two decades ago.

206. OTTO, WAYNE R. "The Acquisition and Retention of Paired Associates by Good, Average, and Poor Readers." *Journal of Educational Psychology*, October 1961.

Sought to learn relative abilities of good, average, and poor readers to learn and recall list of paired associates. Tested 108 pupils from grades two, four, and six.

Found that subjects differed as to number of trials required to learn the list, but that they did not differ as to number of trials required to relearn the list 24 hours after acquisition trials.

207. PLESSAS, GUS P. "Reading Abilities and Intelligence Factors of Children Having High and Low Auding Ability." Unpublished Ed. D. dissertation, University of California, Berkeley, 1957.

Sought to determine the relationship between reading performance and auding ability on a listening comprehension test. Studied 216 eighth graders from 15 classes in junior high schools in Richmond, Calif. Two hundred and sixteen high and low auders screened from a sample of 414 students were compared on intelligence and reading factors.

Found high auders to be significantly higher than low auders on total reading ability, above grade level on matching sounds, following directions and noting details, at grade level on vocabulary and comprehension, but 8 months below grade level on reading to predict outcomes. The low auders were below grade level on all reading factors. Unfortunately, high and low auders were found to belong to different populations

intellectually, so that findings lose much of their educational importance.

Interesting sidelights: High-achieving girls were generally superior to high-achieving boys in reading ability, although the boys scored higher reading mean scores. Even good readers in Plessas' sample were deficient in their ability to read to predict outcomes; this points up a possible educational weakness for reading teachers to consider.

208. SAVIGNANO, LEONARD J. "An Evaluation of the Effect of Children's Specialties on Classroom Enrichment in Grades Four, Five and Six." Unpublished Ed. D. dissertation, Boston University School of Education, 1956.

Sought to learn effect of classroom specialties program in grades four, five and six during 12-week period. Twelve experimental and 12 control classes in suburban school 20 miles from Boston, involving a total of 349 pupils, equated for mental age, chronological age and average achievement. The children chose for classroom use, during their free time, a specialty (area of interest) from those indicated on Pupil Specialty Form. Time gained by permitting children to progress at own rate in some subjects. Opportunities given for display and discussion.

Found no significant difference between experimental and control groups on academic achievement, breadth of interest or acceptance of group by individual. Found difference in favor of experimental group (statistically significant for grades four and five) on classroom adjustment and acceptance of individual by classmates.

209. SCHOLL, GERALDINE T. "The Reading and Spelling Achievement of a Group of English Children as Judged by the Standards of an American Achievement Test." Ph. D. dissertation published in *School of Education Bulletin*, vol. 31, No. 7, 105-107, April 1960. Date completed 1957.

Sought to measure reading and spelling achievement of English children as measured by American norms. Used Stanford Achievement Tests in Staffordshire, England; children aged 7, 9, 11 and 13. Regular and adapted forms of test given.

Found lower scores on adapted form for all groups. All groups scored above norms on word meaning, except adapted group at age 9; significantly higher on spelling; significantly below norms on paragraph meaning. Concluded that study failed to disclose any important differences.

210. SCHUBERT, DELWYN G. "Comparison Between Best and Poorest Classroom Readers." *Elementary English*, vol. 33, 161-163, March 1956.

Sought to compare good and poor readers on the basis of teacher opinions. Gave questionnaire to 80 experienced teachers enrolled in reading-method courses at Los Angeles State College of Applied Arts and Science during spring semester, 1955.

Found that in 70 percent of the cases poor readers were males and that best readers were usually girls; that 22 percent of poor readers had speech defects, while best readers had none; that nearly all the best readers read for pleasure, while only 15 percent of poor readers were so classified; that only one good reader was rated as physically



immature, compared with 30 percent of the poor readers; that poor readers were much more apt to be discipline problems and to be emotionally immature, and that one-fourth of the poorest readers had repeated a grade, while none of the best readers had been retained.

*Note:* Although lacking in sophistication and based on subjective data, this is an extremely interesting study—one which should be refined and duplicated widely. Such information concerning good and poor readers should help in an understanding of underlying causes, as well as providing a frame of reference in working with children in both groups.

211. SMITH, LAWRENCE J. "Reading Growth in Grades Four, Five and Six." Unpublished master's thesis, Central Michigan University, 1959.

Sought to compare relative achievement in reading of children below grade level at the end of grade three and those above grade level at that time with their respective reading achievement at the end of grade six. Subjects were 128 pupils in six consecutive classes attending Central Michigan University Laboratory School from the beginning of grade three through grade six, tested with California Achievement Tests (primary and elementary levels).

Found that on reading vocabulary 81 percent who were below grade level remained retarded, none rating as much as a full grade above level; that 97 percent of superior readers were still above grade level at the end of sixth grade; that on reading comprehension 70 percent remained below grade, and that 93 percent of above graders remained above. Concluded that children below grade level in reading at the end of grade three are likely to show less than average achievement in reading by the end of grade six and vice versa. There is nothing in the study to show whether any special training was provided for the below-average achievers, or the total number within each classification.

212. SPARKS, PAUL E. "An Evaluation of Two Methods of Teaching Reading." Unpublished Ed. D. dissertation, Indiana University, August 1956.

Sought to compare reading progress under Economy's "Phonetic Keys to Reading" with progress under Scott, Foresman's "Basic Reading Program." Tested 824 pupils in grades one to four in two schools with California and Gates reading tests and with Stanford Achievement Tests, spelling section.

Found that Economy pupils scored higher at end of grades one and two; no difference at the end of three or four. Scott Foresman groups "seemed" superior in reading accuracy.

### Subject Fields

213. ASCHENBRENNER, CHARLES LOUIS. "Reading and Intelligence: Relationship with the Content Areas." Unpublished master's thesis, Illinois State Normal University, 1960.

Sought to determine relationship among intelligence, reading, and achievement in the content areas. Gave Stanford Achievement Tests and Otis Quick-Scoring Mental Ability Test to 70 middle-grade pupils.

Found significant relationship among variables being compared.

214. BUCHANAN, SIDNEY A. "A Study of Growth in Knowledge of Important Terms and Concepts, Understanding of Concepts, and Application of Concepts Through Reading and Demonstrations in the Science Program." Unpublished master's thesis, University of Minnesota, 1959.

Sought to measure growth in knowledge, understanding, and use of important terms and concepts in physical science through reading and demonstrations. Worked for 6 months with 32 sixth graders.

Concluded that reading before demonstration proved of little value to below-average student. Both good and poor students profited from demonstrations before reading.

215. DOUGLASS, MALCOLM P. "Towards Better Readers of Maps." Claremont Graduate School, 1959. Unpublished.

Sought to determine effectiveness of using a tachistoscope to promote mastery of outline maps. After preliminary tests in grades five through eight and with one group of adults, two fifth-grade groups received instruction for 30 minutes a day for 2 weeks. In addition to a final test, the group was given a followup test 1 year later.

Found subjects scored significantly higher on map reading test, both immediately after instruction and year later. Concluded that type of instruction had long-range, as well as immediate value.

216. FISHER, ELIZABETH M. "A Comparative Study of Reading and Arithmetic Achievement of the Middle Grades of Selmon Elementary School in Ouchita Parish." Unpublished master's thesis, Northwestern State College, 1956.

Sought to compare achievement in reading and arithmetic for fourth, fifth, and sixth grades in Ouchita Parish, La.

Found that proficiency in reading does not guarantee proficiency in arithmetic.

217. GILREATH, JOSEPHINE C. "A Study of Relationships Among Intelligence and Abilities in Reading and Arithmetic in a Sixth Grade Class." Unpublished master's thesis, University of Tennessee, 1959.

Sought to find relationship between intelligence and achievement in reading and arithmetic in one sixth-grade class in Knox County, Tenn. Gave Lorge-Thorndike Intelligence, Gates Basic Reading and Stanford Achievement tests, comparing by means of Spearman "r".

Found intelligence and computation skill to have higher correlation with problem solving than does reading. Found a combination of all three factors to be more important in problem solving ability than any one of them alone.

218. GRANTHAM, MARY V. "The Relationships of Reading Achievement to Arithmetic Achievement at the Fifth-Grade Level." Unpublished master's thesis, Northwestern State College, Natchitoches, La., 1958.

Sought to determine relationship between arithmetic and reading achievement in fifth grade. Tested 28 pupils with California Achievement Tests.

Found high positive correlation.



219. KOEHN, EDNA. "The Relationship of the Basic Skill Development of Sixth Grade Gifted Children to Ninth Grade Achievement in the Content Fields." Unpublished Ph. D. dissertation, College of Education, University of Minnesota, 1960.

Sought to find relationship between measured achievement in basic study skills in sixth grade with later achievement in ninth grade. Limited study to 60 gifted (IQ at least 120) children in grades 9, 10, 11 and 12 at Minnesota University High School.

Found high correlation between sixth grade basic skill development and ninth grade language arts and social studies; low correlation between skill development and natural science.

220. LUCAS, CHARLES E. "Reading Programs for Upper Grades in McLean County." Unpublished master's thesis, Illinois State Normal University, 1956.

Sought to determine whether reading skills being taught in arithmetic, history, geography and science. Tested 1,000 pupils in seventh and eighth grades of McLean County, Ill., with Stanford Achievement Tests.

Concluded more time spent on teaching reading in arithmetic than any other area, less time in science.

221. MILLER, BETTY A. "A Study of the Relationship of Reading Skills to Success in the Social Studies in Sixth Grade at Inskip School." Unpublished master's thesis, University of Tennessee, 1959.

Sought to determine relationship of reading skills to success in social studies in grade six. Tested 24 sixth-grade children in Knox County, Tenn., with Stanford Achievement, Iowa Silent Reading and Lorge-Thorndike Intelligence tests, comparing by means of rank order correlation.

Found a significant, positive correlation between reading ability and social-studies achievement.

222. SHORES, J. HARLAN. "Are Fast Readers the Best Readers?—A Second Report." *Elementary English*, April 1961.

Sought to compare reading ability of fast and slow readers of science material in the sixth grade. Gave Iowa Silent Reading Tests and California Achievement Tests to 46 sixth graders in a K-12 consolidated school on southeastern coast. Developed and administered a 40-item test called "Reading for Problem Solving in Science."

Found fast readers obtained best scores on Iowa test but not on other tests. Found no relationship between comprehension and rate of the work-study reading involved in responding to comprehension questions. Suggested revising present procedures for measuring reading rate.

223. SHORES, J. HARLAN. "Reading of Science for Two Separate Purposes as Perceived by Sixth Grade Students and Able Adult Readers." *Elementary English*, November 1960.

Sought to compare approaches to reading employed by sixth-grade pupils and by able adult readers in reading science materials for two different purposes. Through introspection, 46 pupils and 52 advanced

undergraduate and graduate students responded to questions about their reading habits.

Found that children lacked flexibility in rate and comprehension shown by adults. Adults knew when to reread, to pause, to slow down, and "even when to finger point and vocalize." Concluded that specific arrangements needed to teach middle graders about the nature of reading and to provide them with practice in reading for different purposes.

224. TAYLOR, DONALD. "A Study of the Growth of Children in Reading, Arithmetic and Spelling." Unpublished master's thesis, De Paul University, 1959.

Sought to compare progress of 87 fourth-, fifth- and seventh-grade students in areas of reading, arithmetic, and spelling. Tested with appropriate tests and "achievements were compared for each grade level of first, second, and third year."

Found that increased growth in reading was accompanied by increase in arithmetic and spelling.

225. WILSON, ETHEL M. "Relationship of Reading to Certain Content Areas, Intelligence, and Study-Skills." Unpublished master's thesis, Illinois State Normal University, 1957.

Sought to determine relationship between content areas, intelligence and study skills. Tested 24 fourth and fifth graders.

Found significant relationship between reading achievement and achievement in spelling and arithmetic; also, between reading and intelligence.

## Spelling

226. AARON, IRA E. "Comparisons of Good and Poor Readers in Fourth and Eighth Grades." *Journal of Educational Research*, 54: 1, 34-37, September 1960.

Sought to compare good and poor readers in fourth and eighth grades on spelling, spelling of phonetic syllables, syllabication and intelligence. Tested 175 fourth graders and 155 eighth graders in one Georgia school district.

Found good readers differed significantly from poor readers on all the variables tested. There were individual exceptions.

227. CAMPION, MILDRED C. "A Comparative Study of the Percentage of Spelling Words in One Spelling Series Appearing in the Several Forms of Two Standardized Tests." Unpublished master's thesis, Rhode Island College, June 1959.

Sought to determine extent to which words in the series, Building Spelling Power, are tested by the California Achievement and the Stanford Achievement Tests.

Found percentage of words common to the series and the tests to be low. Concluded that spelling achievement testing should not be left entirely to standardized tests.



228. HAHN, WILLIAM PAUL. "Comparative Efficiency of the Teaching of Spelling by the Column and Contextual Methods." Unpublished Ed. D. dissertation, University of Pittsburgh, 1960.

Sought to compare teaching of spelling from word lists with a method involving much writing in context. Tested 848 pupils in grades three through six in three school districts of different socioeconomic backgrounds. Four experimental and one control group at each grade level. Ten-week program: Controls followed procedures outlined in spelling texts, 20 minutes a day; experimentals studied same words from same books, but lessons devoted to writing sentences and paragraphs read from book by teacher, composed by teacher and by pupils. Eighty-word test used as pre- and post-test, also administered after 6-week "unlearning" period. Test required that word be spelled in column form and in sentence dictated by teacher.

Found by "t" test that contextual method no better than column method, but attitude of pupils more favorable with contextual approach.

229. KROMANN, INGA. "A Comparative Study of the Speech and Auditory Characteristics of Children With Discrepancies Between Spelling and Reading Achievement." Unpublished Ph. D. dissertation, College of Education, University of Minnesota, 1959.

Sought to determine differences in speech and hearing difficulties manifested by those achieving in spelling below and above their levels of achievement in reading. Tested 391 fourth graders.

Found significant differences on ability to name letters representing various sounds and words beginning and ending with given sounds.

230. MCSWEENEY, MIRIAM. "Word Usage Techniques in Spelling." Unpublished Ed. D. dissertation, Boston University, 1959.

Sought to stimulate children's use of spelling words in written language and to evaluate their ability to make the transfer during 2 months with one fifth-grade class and control group in Lynn, Mass.

Found that pupils using words in their writing made "statistically evident" gains over those using spelling words in "regular method for 5 days."

231. MORRISON, IDA E., and PERRY, IDA F. "Spelling and Reading Relationships With Incidence of Retardation and Acceleration." *Journal of Education Research*, vol. 52; No. 6, 222-227, February 1959.

Sought to determine relationship between spelling and general reading ability of children in grades three through eight. Tabulated pupils whose reading and spelling scores were below the 15th percentile and above the 85th percentile. IQ scores were available for 840 pupils in grades five and eight.

Found more retardation in spelling than in reading. Correlations ranged from .75 in grade eight to .85 in grade three.

232. PAVLAK, STEPHEN E. "A Critical Analysis of Scientific Research in Spelling." Unpublished Ed. D. dissertation, University of Pittsburgh, 1956.

Sought to make a critical analysis of scientific research in spelling

for 30-year period. Compiled 234 references of which 131 were original research reports.

Found that 40.5 percent of the studies were deficient in some aspect of research procedure. Studies did not reveal any agreement as to best general method of teaching spelling, but disclosed a definite trend toward individual method. Recall was found superior to recognition as a method of testing.

233. SWICHTENBERG, GLENN J. "Interrelationship of Reading and Spelling in Intermediate Grades." Unpublished master's thesis, Illinois State Normal University, 1960.

Sought to determine relationship between reading and spelling in middle grades. Tested 100 pupils.

Found highly significant relationship for above average pupils, but not for pupils of average and below average ability.

### Teacher Preparation

234. HAAG, CARL H., SAYLES, DANIEL G., and SMITH, DONALD E. P. "Certificate Requirements for Reading Specialists." *The Reading Teacher*, vol. 14, No. 21, 98-100, November 1960.

Sought to determine certification requirements for reading specialists throughout the United States. Sent questionnaire to Director of Certification in each State. Replies received from all 50 States, except Arkansas, Kansas, Nevada, and Wyoming.

Found that 12 States (26 percent) have certification requirements for specialists in reading. Required academic training ranges from 4 to 36 hours beyond the course work required for bachelor's degree. Eight of the 12 States with special reading certificates enacted their requirements since 1955. Concluded that trend will continue.

235. MCGINNIS, DOROTHY J. "Preparation of Teachers in the Intermediate Grades for the Teaching of Reading." *Reading in a Changing Society*, 181-85, 1959.

Sought to learn what teachers have to say about their preparation for teaching reading. Sent questionnaires to 1,000 teachers selected by means of tables of random numbers. Four hundred and twenty-nine were returned; 364 complete in every detail.

Found that teachers generally considered their preparation to be adequate in both amount and quality. They reflected a desire for better practice teaching, more demonstrations and opportunities to observe the management of a group having wide range of ability and interest.

236. NEWTON, J. ROY. "Reading in Your School." Published McGraw-Hill Co., 1960. State University of New York, Albany, N.Y.

Sought through questionnaires directed to State departments of education to determine certification requirements for elementary and secondary reading specialists in the 50 States.

Found that six States, Connecticut, Delaware, Massachusetts, Oregon, Pennsylvania, and Wisconsin issue certificates for both elementary and secondary reading specialists. New Jersey issues secondary certificates



and shortly plans K-12 certification. Eight States contemplate certification at both levels, and two others are considering elementary certification. Thirty States expressed interest in learning what others are doing.

237. RESEARCH COMMITTEE, WESTERN MICHIGAN UNIVERSITY CHAPTER OF IRA. "Instructional Problems in Reading as Viewed by Teachers and Administrators." *The Reading Teacher*, vol. 14, 75-80, November 1960.

Sought through inventories to determine the problems encountered in teaching of reading and the kinds of inservice-training provided by schools. Inventories administered to 549 elementary teachers and to 54 school administrators.

Found lack of preparation and teacher inadequacies to be chief problem cited by administrators (42.3 percent); while less than 2 percent of teachers considered this an important cause of reading problems. Teachers rated development of basic skills as most important problem (36.7 percent). Both teachers and administrators placed heavy emphasis on providing for individual differences, lack of time, and inadequate materials. Nearly 28 percent of the teachers failed to recognize any in-service program in reading. Administrators considered "professional library facilities and instructional materials" and "reading clinics and demonstrations" as far more important than they were regarded by the teachers.

238. TODD, KERMIT R. "An Analysis of the Points of View, Practices, and Procedures Related to the Programs of Helping Children with Their Reading Problems in Selected Elementary Schools in Indiana." Unpublished Ed. D. dissertation, Indiana University, 1955.

Sought to determine extent of special programs in reading in 24 selected Indiana schools. (Method of selection not given.) Used questionnaires and interviews with supervisors.

Found that 41.6 percent of schools had special reading teachers. Only 6 of 24 supervisors considered reading room a permanent part of their programs. Tendency noted was to employ reading consultants to help classrooms teachers.

# Appendix

OE 081 004 (REV. 5-61)  
FORMERLY SEC-20

GUBNET SYSTEM NO. 514250  
APPROVAL EXPIRES: MARCH 31, 1962

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE  
OFFICE OF EDUCATION  
WASHINGTON 25, D. C.

## REPORT OF RESEARCH IN READING (1955-1960)

<p align="center"><b>- INSTRUCTIONS -</b></p> <p><i>Please complete one copy of this report for each carefully-conducted research study in reading completed at your institution or agency between January 1, 1955 and January 1, 1960.</i></p> <p><i>Return completed copy to the above address as early as you can, but before December 15, 1961.</i></p> <p><i>The enclosed envelope, no postage required, is to be used to return these completed report forms.</i></p>	REPORT COMPLETED BY (Name)	DATE
	UNDER SUPERVISION OF (Institution's name & title)	
	NAME OF INSTITUTION OR AGENCY	

### I - BIBLIOGRAPHIC DATA

NAME OF RESEARCHER (Last, First, Middle Initial)		NAME OF CO-RESEARCHER (Last, First, Middle Initial)	
COMPLETE TITLE OF STUDY			
	NO. PAGES	PERCENT FOR WHICH COMPLETED, IF APPLICABLE	DATE COMPLETED
NAME OF UNIVERSITY OR AGENCY		NAME OF MAJOR ADVISOR	
Is the study available on university microfilm?  <input type="checkbox"/> YES <input type="checkbox"/> NO	CLASSIFY STUDY ACCORDING TO TYPE <input type="checkbox"/> HISTORICAL <input type="checkbox"/> NORMATIVE <input type="checkbox"/> EXPERIMENTAL <input type="checkbox"/> SURVEY <input type="checkbox"/> CASE <input type="checkbox"/> OTHER (Specify)		
	IF AVAILABLE, PLEASE SEND A COPY OF THE ABSTRACT OR REPRINT OF STUDY	STATUS OF STUDY <input type="checkbox"/> PUBLISHED IN BOOK <input type="checkbox"/> PUBLISHED IN PAMPHLET <input type="checkbox"/> ARTICLE IN PROFESSIONAL JOURNAL <input type="checkbox"/> NOT PUBLISHED	

### COMPLETE THE INFORMATION BELOW IF STUDY HAS BEEN PUBLISHED

PUBLISHED BOOK/PAMPHLET	NAME OF AUTHOR (Last, First, Middle Initial)		NAME OF CO-AUTHOR (Last, First, Middle Initial)	
	TITLE OF PUBLICATION			
	NAME AND ADDRESS OF PUBLISHER			NO. PAGES
PUBLISHED ARTICLE	NAME OF AUTHOR (Last, First, Middle Initial)		NAME OF CO-AUTHOR (Last, First, Middle Initial)	
	TITLE OF ARTICLE			
	NAME OF JOURNAL			PAGE REFERENCE
	VOLUME AND NO.		DATE (Month & Year)	
	DATE (Month & Year)			



RESEARCH IN READING FOR THE MIDDLE GRADES

If you are mailing a copy of an abstract or report, and if all of the information requested below is covered in it, you may omit the following questions. If not, please answer all the remaining questions.

I - PROBLEM AND PURPOSES OF STUDY

(If additional space is needed, use plain sheet of paper and be sure to identify the item.)

MAJOR PURPOSE OR PROBLEM

HYPOTHESES TESTED

II - DESIGN OF STUDY

Was a sample used in making this study? <input type="checkbox"/> YES <input type="checkbox"/> NO		DURATION OF STUDY _____ YEARS      MONTHS _____		IF STUDY WAS IN QUESTIONNAIRE FORM, GIVE % OF USABLE RETURNS BASED ON TOTAL NUMBER SOLICITED	
1. GROUP STUDIED:		2. CHECK LEVELS INCLUDED IN STUDY		3. CHECK SCOPE OF STUDY	
GIVE NO.	GROUP	✓	LEVELS	✓	SCOPE
	Students		E-3		Local
	Teachers		4-6		Statewide
	Classes		7-9		Regional
	Schools		10-12		National
	OTHER (Specify)		Junior College		International
			Four-year College		
			Graduate School		
			Adult		
			OTHER (Specify)		

OTHER PERTINENT INFORMATION ABOUT SAMPLE OR GROUP STUDIED: DESCRIBE METHOD OF SELECTING SUBJECTS.

III - RESEARCH DESIGN OF STUDY

METHOD OF COLLECTING DATA <input type="checkbox"/> QUESTIONNAIRE <input type="checkbox"/> INTERVIEW <input type="checkbox"/> OTHER (Specify) _____ <input type="checkbox"/> OBSERVATION <input type="checkbox"/> TEST			IF METHOD WAS BY TEST, INDICATE TEST TITLE, OR GRADE OR AGE LEVEL OF TEST
CONTROLS USED (If applicable)			METHOD OF TESTING DATA

IV - LIST MAJOR FINDINGS AND RECOMMENDATIONS

Do you desire a copy of the bibliography when it is completed?

YES       NO