



Improving
Reading

IN THE JUNIOR HIGH SCHOOL
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Proceedings of Conference, December 13-14, 1956
Department of Health, Education, and Welfare
Office of Education • Secondary Schools Section

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U. S. DEPARTMENT OF
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Foreword

THE PURPOSE of this bulletin is to help teachers, supervisors, administrators, and other educators improve the quality of reading done by junior high school pupils. Interest in ways to teach developmental and remedial reading in the junior high school is nationwide. Junior high school principals and teachers of various subjects are particularly interested in developing schoolwide reading programs.

In an effort to assist these professional personnel, the Secondary Schools Section in the fall of 1956 invited some of the reading authorities, consultants, and directors of clinics to participate in a 2-day reading conference, December 13 and 14, 1956, at Washington, D. C. The purposes of the conference were as follows:

1. To consider ways in which sound research findings may be used to improve instruction in reading.
2. To offer suggestions for initiating a developmental reading program; to suggest guiding principles, learning experiences, and types of materials for conducting a developmental reading program in high school.
3. To define the responsibilities of various subject matter teachers for instruction in reading.
4. To outline means for starting a remedial program; to offer guide lines for organizing and operating a remedial program in the junior high school.
5. To consider the relationship of evaluation to reading improvement.
6. To review two statewide programs for improving reading.

How well these purposes have been accomplished is evident by the formal talks as published in this bulletin. The emphasis throughout the bulletin is on research, particularly the implications of significant research for the improvement of reading instruction and for the conduct of sound developmental and remedial reading programs.

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Remarks Welcoming Members of Conference on Improving Reading in the Junior High School

By

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*Deputy Commissioner, Office of Education
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MEMBERS of the reading conference: We are delighted that you can participate in the Conference on Improving Reading in the Junior High School, sponsored by the Secondary Schools Section of the Office of Education.

As you can see from our list of participants, this is a select group of authorities in the field of reading. It includes research workers, authors of reading books, reading consultants, and professors of reading. And, just as important, it includes outstanding specialists who spend most of their time in the high school classroom as successful teachers of reading, supervisors of reading, and directors of dynamic reading programs. In fact, we feel sure that every participant in this conference is well acquainted with reading problems in the classroom and in ways in which these problems are being attacked.

This is a working conference. Its purpose is to discuss ways to improve reading in the junior high school. Specialists representing various subject areas and core will define the responsibilities for teaching reading in language arts, mathematics, science, social studies, and core programs. Junior high school teachers today need and want help in getting started on a school-wide reading program. Also they want to know how to carry on and evaluate a good program. They want practical suggestions for teaching all students—bright, average, and slow—to read up to their maximum capacity. They want to know the best ways of helping retarded readers in junior high. They want to know how to use valid and consistent research findings in the area of reading. And they are interested in knowing how they can continue to develop the reading skills and interests which the sixth-grader brings to the seventh grade.

In general, junior high school teachers, supervisors, and principals are convinced of the need for improved reading instruction in the junior high school. I know you are too. Without carrying coals to Newcastle, may I suggest that learning to read is a lifelong process. Your experience with our Office form "Travel Instruction for Conferencees" may have reinforced your belief in the need for instruction in reading throughout life. There is no doubt in my mind that the responsibilities of all high school teachers for improving reading are becoming greater each year instead of less. New knowledge means new ideas in new books. New printing processes and outlets for magazines and books have resulted in a deluge of printed matter of diverse quality and value. Appeals to the minds and emotions of adolescents through printed words are increasing. John Masefield has said that the general purpose of reading is "to seek recreation and cheer, guidance, counsel and consolation." Today, his words about the value of reading have deep significance.

Reading, we believe, has been taught well even under the handicaps of overcrowded classrooms, half-day sessions, and inadequate instructional materials. At the White House Conference on Education in December 1955, delegates agreed that schools were doing the best job in history of teaching the 3 R's, but they also stated that "continuous improvement is desirable and necessary."

In this conference our purpose is not to rationalize or justify what has been done in the past. Instead, our purpose in these meetings is to call attention to ways in which youth of junior high school age can become better readers than they are today. You specialists can help the teachers of our junior high schools to do that. Certainly the publication which results from your talks and discussions should be of practical value to junior high school administrators, supervisors, and teachers. Finally, we are hoping that you will help our secondary school staff to identify significant problems for research in the area of reading.

Let me close by thanking you for coming to these meetings. Staff members of the Office of Education appreciate the opportunity of being present at this significant conference—the first of its type since the Office was established in 1867.

IPART I

Part I. Research in Reading

What Does Research Suggest About Ways To Improve Reading Instruction?

By

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RESearch in the field of reading is more voluminous than that for any other area of the school curriculum. Much of this research has implications concerning ways to improve reading instruction. It would clearly be impossible to mention by name and to review all the studies pertaining even to one segment, such as remedial reading. It is necessary, therefore, to deal in generalizations drawn from research, with only a few references to actual studies by way of illustration.

An effort will be made to generalize only so far as is warranted by specific studies which could be cited if time permitted. For more detailed delineation of these general statements, with supporting data, reference may be had to the annual summaries of research in reading prepared by William S. Gray (11),¹ summaries issued from time to time by Miles A. Tinker (27), Paul Witty (36), and other authorities, and three publications by the Educational Records Bureau which, taken together, summarize research in reading over a period of twenty-three years (30).

I shall propose a series of questions about improvement of reading instruction and then comment on the research pertinent to each question.

1. *Does research indicate that there is a need for improvement of reading instruction in our schools?*—The title of this talk implies that a need for improvement of reading instruction exists, and research furnishes evidence of this need. It should be understood, however, that the need is not greater now than it formerly was. Although research in which the reading achievement of the present generation of school pupils has been compared with reading achievement of pupils

¹ Bibliographical references are listed on pages 13-15 at end of this article.

years ago is rather fragmentary, reports by Gray (13), Witty (38), and others indicate that present-day reading achievement is at least as good as reading achievement was in the past.

Nevertheless, evidence of a need for improvement in reading instruction is found in the fact that an extremely wide range exists in the reading achievement of pupils at the same age or grade level by the time they reach the junior high school. In almost any sizable class, this range will be found to be as much as eight grades on a standardized test of reading achievement. It is true that this wide variability in reading achievement is closely correlated with variability in intelligence, even when intelligence is measured by an individual test of mental ability in which reading ability plays a small part. In other words, differences among pupils in reading-ability are, to some extent, a function of differences in mental ability about which schools cannot do very much. However, one cannot place the whole blame for inferior reading upon the intelligence of the pupils, for many studies have shown that numerous pupils are reading much below their capacity, and it is these pupils who particularly need better instruction.

2. *What do we know about the role of interests in reading?*—Research on reading interests is extensive, particularly at the junior and senior high school levels, but this area will be passed over briefly in the present paper, since Arno Jewett's paper deals specifically with the reading interests of junior high school pupils.² Research has shown important sex differences in reading interests, and many studies have identified the dominant reading interests of boys and girls. As George W. Norvell (19) pointed out in an extensive study of pupils in grades 7 through 12 in New York State, the relation of sex to patterns of reading interests should be carefully studied in planning any reading program for the school. At the same time, research indicates that each pupil has his own pattern of reading interests and that the interests of each individual should be taken into consideration in setting up a reading program for him.

3. *What are the main areas of reading instruction commonly explored in experiments concerned with the improvement of reading?*—Most experiments in reading improvement carried on under classroom or group procedures have been concerned with ways to improve reading rate, vocabulary, and various aspects of comprehension, such as those skills involved in study-type reading. Research having to do with intensive remedial work of a clinical nature has frequently dealt with these three aspects of reading improvement; and, in addition, has taken special account of ways to remove emotional blocks to reading, such as those growing out of personal and social maladjustment in the home, school, and community environment.

² P. 26-33.

4. *What is the relationship between rate and comprehension in reading? In efforts to improve the reading of junior high school pupils, which should be stressed the more—rate or comprehension?*—There has been a good deal of misunderstanding about the correlation between reading rate and comprehension and about the role of speed in a reading-improvement program. The administration and scoring arrangement of some of the earlier reading tests made it inevitable that high correlation between rate and comprehension would be obtained. A good many workers in the field of reading, not realizing that the relationship found was, to a considerable degree, an artifact, concluded that the fast readers were nearly always the good readers. They inferred that a desirable way to improve comprehension was to teach pupils to read faster. This inference often had unfortunate consequences.

We know now that when reading rate and comprehension are measured in such a way that neither score is dependent upon the other, the correlation, while positive, is rather low, generally of the order of about .30 (3). There is also some evidence that the correlation between speed and comprehension is lower for difficult material than for relatively easy material (26).

Even if the relationship between rate and comprehension were high for groups of pupils, which it evidently is not, there would still be lack of research to support a hypothesis that the reading comprehension of a given individual can be improved by having him speed up his reading. The comprehension of some bright, but overcautious, pupils may be improved by training them to read faster, but the same kind of training will work to the detriment of other pupils.

Since speed without comprehension is worthless, it is believed that the greater emphasis should always be placed upon comprehension in a reading program, notwithstanding the claims that are sometimes made by reading services about the advantages of their speed-of-reading training.

There is, however, one kind of attention to reading speed which is very important. Research indicates that mature readers learn to adjust their rate according to the difficulty of the material and their familiarity with it, and that the better readers adjust more readily than the poorer ones do (3). There is also evidence that in certain fields, such as science and mathematics, the pupils who have learned to read slowly and carefully are higher achievers than the fast readers (4). It seems likely that all pupils would be greatly benefited if they were taught early in their school career to vary their reading speed according to the nature and difficulty of the material and according to their purposes in reading different kinds of material.

5. *Does eye-movement training improve reading ability?*—This question follows naturally after the preceding one. Various research reports, including an extensive summary by Tinker (28), indicate that eye-movement records are comparatively valid and reliable measures of reading performance. However, it does not follow, as some workers in the field of reading have assumed, that eye-movement training improves reading comprehension. On the contrary, research evidence supports the thesis that eye movements reflect reading comprehension—that they are good or poor as understanding is adequate or faulty. Nevertheless, some teachers, and particularly some reading laboratories, continue to place considerable emphasis upon eye-movement training.

The question of the worth of direct training of eye movements involves a still more controversial question—that of the value of mechanical aids to reading instruction, such as the metronoscope, reading films, and a variety of commercially available shutter-like devices for pacing reading speed, most of which may be traced back to a simple, noncommercial device developed by Guy T. Buswell and others in the Reading Laboratory at the University of Chicago some fifteen or twenty years ago. These instruments frequently have considerable motivational value, particularly for some individuals, and when the emphasis in their use is placed upon comprehension they probably have training value as well. However, the only conclusion that seems warranted by the rather voluminous research bibliography on these instruments is that their special worth has not been clearly demonstrated and that there is no assurance that a better job can be done through the use of these devices than can be done by a capable teacher of reading without them (25, 31).

6. *What are the most effective ways of improving the vocabularies of junior high school pupils?*—There are two commonly used general methods of teaching vocabulary. One of these is by means of having the pupils do wide reading and encouraging them to infer word meaning from context. The other is through direct training and specific practice in learning the meaning of new words. There have been many studies of these two methods. One of the most careful studies was carried on during the 1930's in grade 4 by W. S. Gray and Eleanor Holmes (14). They found that the direct method was more effective than the incidental method in improving vocabulary and that it was also more effective for those with inferior ability than for superior pupils. Most other studies, including those at the junior and senior high school levels, have indicated that the direct method was either superior to or equal to the context method in promoting vocabulary growth.

Needless to point out, however, these two methods are not mutually exclusive. It is logical to believe that a combination of the two procedures is better than either one used alone, even though there does not seem to be definite research on this point.

Direct training on the meaning of words is occasionally criticized on the ground that it is "teaching in isolation." The reason why teaching in isolation involving intensive practice is sometimes thought to be bad is not entirely clear. As Donald D. Durrell (7) pointed out in a recent speech, isolated, specific practice is an almost universal procedure for the correction of weaknesses in a wide variety of learning situations outside the school, as well as within it. This procedure can hardly be criticized on theoretical ground, if it gets results, although the practice should, of course, be related to use in context so far as possible.

Some studies have indicated that significant gains in vocabulary are obtained through kinesthetic procedures, such as clay modeling (5) or tracing (20).

7. *What is the relationship between reading ability and achievement in the content fields? What are the best ways of improving reading in the content areas?*—It is well known that there is fairly high correlation between reading ability and achievement in the linguistic areas, but a question may be raised whether this correlation is due to the influence of intelligence upon both reading and achievement. However, positive correlation between reading and achievement has been found, even when intelligence is held constant (1, 29, 32). Various studies have also shown that positive relationship between ability to read and subject matter achievement is not confined to the linguistic area but extends to the mathematical and scientific fields, as well (24, 35).

The existence of significant positive correlation between reading ability and achievement in a subject field does not necessarily mean that improvement in reading ability will result in improved achievement. This question has not been studied extensively, but there is some evidence that increase in reading ability is accompanied by higher achievement scores. For instance, William E. Young (39) summarized a series of research articles which supported the conclusion that, so far as the social studies field is concerned, improvement in reading ability generally leads to improved achievement. A controlled experiment by Marie Corrigan (6) also indicated that improvement in reading was effective in raising test scores and school marks to a significant degree.

While there is substantial correlation between general reading ability and ability to read in a particular field, the correlation is by no means perfect. In other words, pupils need to learn how to do the particular kinds of reading called for in literature, social studies, science,

and mathematics, as well as to develop their over-all reading ability. Years ago, Paul B. Jacobson (16) pointed out that "giving reading instruction in the field in which the content is to be mastered is superior to giving it in another subject field and expecting the ability to transfer to the content field." Undoubtedly, the best way of improving reading ability in a particular field is to obtain the cooperation of classroom instructors in teaching the vocabulary and reading and study skills peculiar to that field.

8. *Is it advisable to try to relieve the reading difficulties of junior high school pupils through group corrective instruction?*—Numerous studies have shown that most pupils who are mildly retarded (up to two grades as indicated by scores on a standardized reading test) can make significant improvement in reading achievement under group corrective instruction carried on not less than twice a week for as long as half a school year. The question of the permanence of growth under corrective instruction is somewhat more in doubt, but in the comparatively few instances in which permanence of improvement has been studied the gains made during corrective teaching have been found to be relatively permanent (33). It is noteworthy that a large proportion of the experiments in corrective reading have been carried on by classroom teachers rather than by specialists in reading. The generally favorable experimental results in this area have led many junior and senior high schools to introduce corrective reading as a part of their regular school program.

Among the teaching procedures frequently used in corrective reading programs are instruction in finding main ideas and supporting details, drill on enlarging the sight vocabulary, instruction in reading directions, instructions in oral reading, instruction in skimming, and study of affixes and roots. The most popular teaching procedure seems to be the common, everyday one of practice on enlarging the sight vocabulary (34).

So far as possible, classes in corrective reading should be scheduled in the regular school day, and there is evidence that numerous schools do schedule their corrective reading work in this way (34).

9. *How many schools handle cases of extreme reading disability?*—In reply to a questionnaire sent in 1951 to members of the National Association for Remedial Teaching, about 75 percent of the schools represented in the Association indicated that they provided individual remedial instruction for markedly retarded pupils, usually including less than 10 percent of the school group (34). This proportion is probably larger than it would be for the country as a whole, but the replies to the questionnaire do indicate that remedial, as well as corrective, reading is a common practice in modern schools.

When one analyzes the research literature, however, an impression is gained that provision for pupils who are extremely handicapped in reading by the time they reach the junior high school level is not very extensive nor effective in the usual school situation. Intensive remedial work calls for case-study technique involving thorough diagnosis in which factors seemingly remote from the immediate reading situation have to be considered and for clinical procedures in treatment of difficulties. "The cooperation of a reading specialist who has a thorough background in psychology is essential. Since most schools still do not have such a person on their regular staff, they have to depend upon cooperation with, or referral to, outside clinical services in the community or a nearby college or university. This is not a desirable situation, but it will probably continue to exist for a good many years until schools generally recognize the importance of, and are willing to pay for, the addition of a reading expert to their regular staff and until the present shortage of personnel in the field of remedial reading is reduced.

10. *Has research shown positive values for developmental reading programs at the junior and senior high school levels?*—Recognizing that few individuals at any level habitually read fully up to their intellectual potential, William S. Gray, Guy Bond, and other leaders in the reading field began in the middle and late '30's to urge upon junior and senior high schools the introduction of "developmental reading" programs designed to bring all pupils up to their maximum reading capacity as a part of the regular work of the secondary school. The theory of developmental reading was well set forth by Gray in an address in 1937 (12).

In the ensuing years, the concept of developmental reading gained wide acceptance. In the questionnaire survey referred to earlier, about half the schools represented said that they did try to improve the reading of all pupils through developmental reading programs. However, it is evident that, even after two decades, the term "developmental reading" is not standardized in common usage. There has been so little actual research on the values of developmental reading that it is impossible to say on the basis of objective information how well developmental reading programs are functioning in the schools throughout the country. Partly because of Gray's influence and that of Witty, the Chicago Public Schools have probably done more experimentation with developmental reading programs than any other large school system (15, 17, 18). In the comparatively few published studies of the value of developmental reading programs, the results have been encouraging, as, for example, in a report by Thornton C. Blayne (2).

Secondary schools most frequently carry on their developmental reading work by means of a definite reading program in the English department and planned guidance in reading in connection with the regular content courses. Other procedures include instruction or guidance in reading during study hall or supervised study periods and well-planned free reading opportunities for recreation and the pursuit of the special interests of individual pupils.

11. *Are there close relationships between personality problems and reading difficulties?*—Critical analysis and interpretation of research studies by Helen M. Robinson (24), David H. Russell (22, 23) Paul Witty (37), Helena H. Zolkos (40), and many others indicate that reading disabilities and personality difficulties are related and that they seem to interact, with each adding stress to the other. However, as Robinson and others have cautioned, a cause-and-effect relationship should not be inferred from the correlation between reading and personality adjustment. As Henry Feinberg and Clyde L. Reed (9) pointed out, the controversy concerning which is the etiological factor, the emotional condition, or the reading situation must be resolved in each individual case, and no general conclusion on this question can be reached.

12. *What are the greatest needs for research on the improvement of reading ability above the elementary school level?*—Several needs for additional research were implied in the discussion of the foregoing questions. Among these needs were (a) more thorough appraisal of the value of developmental reading programs, (b) further study of the nature of the relationship between personality and reading, and (c) follow-up studies of pupils whose reading has been improved through special help to determine how much difference the improved reading makes in school and in out-of-school success. Several other research needs may be mentioned without taking the time to comment upon them: (1) objective identification of the components of reading ability through factorial analysis, (2) planning and evaluation of special reading programs for gifted students, (3) further study of the value of teaching phonics in a reading program, (4) research on difficulty of reading material as indicated by the various reading difficulty formulas as compared with actual difficulty of the material determined by experiment, (5) controlled studies of the relative merits of different remedial methods in particular situations, (6) comprehensive studies, with adequate experimental design, of the worth of mechanical equipment in a reading improvement program, and (7) thorough studies of the effect of new media of communication, particularly television, on the reading achievement of our school population and of ways in which these media, which often seem to compete with reading develop-

ment may be turned into assets that will promote greater interest in, and attention to, reading.

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What Does Research Tell the Classroom Teacher About the Basic Causes of Reading Disability and Retardation?

By

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What Do We Mean By Reading Disability and Reading Retardation?

Standardized reading test scores of pupils in grade eight in a typical junior high school may range from grade 4 to grade 12, with 17 percent of this particular group scoring a year or more below grade placement (2).¹ All the pupils reading below the level of their grade placement may be considered "retarded readers," but many of them may be reading as well as they are able to. They are "retarded" only in the sense that they do not read as well as the average pupil in grade eight. Some of the pupils in the group reading below grade placement are cases of reading disability in the sense that their level of general reading achievement is below their general mental ability or their achievement in other types of learning. In a broader sense, pupils whose scores are at or above grade placement may also have reading disabilities. These are pupils of superior mental endowment whose reading ability does not measure up to their potential. The teacher's problem is to distinguish between "retarded readers" and "disabled readers," to provide an adjusted program of developmental reading instruction for the former, and to investigate causes of reading disability preliminary to providing a corrective or remedial program for the latter.

What Are the Basic Causes of Reading Disability?

In spite of years of research in reading and an accumulation of more than 3,000 studies, no easy answers are available. Because facts are meager, emotional bias slants many of the conclusions derived from limited research findings. One widely accepted conclusion can be stated: Reading disabilities are the result of several contributing factors. A major finding of Helen Robinson's study (31) is that the

¹ Bibliographical references are listed on pages 22-25 at the end of this article.

most seriously retarded of her thirty cases showed the greatest number of anomalies, whereas those least retarded presented fewest.

A review of the research indicates to the classroom teacher both the complex nature of causation and the limitations of the studies undertaken thus far. Research is of two kinds: group studies comparing good and poor readers and case studies describing reading disabilities. Because almost all studies investigate the effect of single factors, representative studies will be reviewed according to (a) mental, (b) physiological, (c) emotional, (d) environmental and social, and (e) educational factors.

Mental Factors

Correlations between group verbal intelligence test scores and reading test scores are high—usually between .50 and .80. Correlations between reading test scores and intelligence tests that include performance as well as verbal scores are much lower (40). Teachers should therefore question group I. Q. scores of poor readers, realizing that an intelligent child who is a poor reader may appear dull. Many poor readers are, of course, of low verbal intelligence, and their slow learning affects all academic subjects. But teachers should remember that among cases of specific reading disability may be found pupils with low, average, or superior intelligence (45). One out of four poor readers will have average or superior intelligence, according to Donald D. Durrell (9) and may be expected to do better in reading. The relationship between mental age and reading ability appears to be less positive with beginning readers (16) and to become increasingly important as the reading task becomes more complex (3, 25).

Research into the intellectual factors basic to reading ability tells the classroom teacher that success in the earlier stages of reading development is more dependent on specific background skills, such as visual memory, auditory perception, and phonics than on mental age (9), suggesting that even pupils in the lower range of intelligence tests scores can be taught fundamental skills (41).

Physiological Causes

Vision.—Investigations of visual defects among good and poor readers yield conflicting results, suggesting that visual anomalies alone are not necessarily causative. For example, Robinson (31) identified visual anomalies in 73 percent of her cases but concluded that in 10 percent of these the visual difficulties were coincidental. According to many studies, hyperopia, hyperopic astigmatism, binocular in-

coordination, visual fields, and aniseikonia are the visual difficulties most commonly related to reading disability (31). Teachers need to be aware of the contributory effects of certain types of visual difficulties and to include adequate screening tests in their study of poor readers (32).

Hearing Loss and Speech Defects.—No clear-cut evidence is found in the research as to the correlation of auditory acuity and reading level (4, 20). From their review of the research, Paul Witty and David Kopel (45) concluded that auditory factors appear to be related to reading only in individual cases where the defect is great. In the same way, speech defects have sometimes been associated with reading disability but the evidence of causality is inconclusive (1, 4, 28). Nevertheless, teachers should be aware of the possible influences of both hearing and speech defects in individual cases. Reasons for a poor reader's deficient phonetic skills, for example, may be traced to speech defects or hearing loss experienced during the earliest years of reading instruction and now corrected. Thus, re-training in specific skills in beginning reading may be a reasonable recommendation.

Neurological Difficulties.—Cases of extreme difficulty in learning to read led early investigators to hypothesize damage to specific areas of the brain, either from injury or lack of development, as a major cause of reading disability among otherwise normal subjects. *Congenital word-blindness* or *dyslexia* are labels that are still frequently used. These labels neither explain nor describe causes of reading disabilities. They simply say, in effect, that other possible causes have been ruled out and that symptoms of brain damage have been noted by neurological and psychological examination.

Ralph C. Preston and J. Wesley Schneyer (30) proposed an investigation of the interaction of neurological and psychiatric factors, justifying the need for this type of study on their review of 83 published investigations, of which 31 showed positive relationships between reading disability and neurological factors.

Research is still needed to determine the extent to which brain damage may prevent progress in learning to read when appropriate instructional methods are used. Grace M. Fernald (18) and Alfred Strauss and Laura Lehtinen (42), for example, have shown that brain-damaged children can be taught to read using special methods.

While the exploration of the effects of brain damage is of great interest to reading specialists, the classroom teacher receives little positive help from research in this area. Where resources for neurological examination are available, the teacher's role is to determine when referral is appropriate. Even when evidence of brain damage is clear in individual cases, the teacher must still decide what, if anything, can be done in the school situation to improve instruction for such pupils.

Mixed dominance is another type of neurological disorder that has been proposed as a cause of reading disability. Several persons have presented evidence to support the theory that more poor readers than good readers exhibit mixed dominance (10, 7, 1, 36, 22, and 17). Other investigators (e. g. 15, 19, 28) believe no relationship exists between dominance and general ability or specific errors in reading. In view of conflicting research, reading specialists should probably include the study of dominance in analyzing all aspects of an individual's problems and should investigate recently proposed training devices (23). However, classroom teachers will find little value in studying dominance until research tells them what they can do to affect the condition, if it proves an important causal factor.

Other Physical Factors.—Malnutrition, infections, and endocrine disturbances are the three general physical factors mentioned most frequently as possible causes for failure to learn to read (31). Thomas H. Eames (11) found considerably higher incidence of general diseases and defects among reading failures than among non-failures. Since poor health and low vitality may induce poor attention to learning and cause absences from school, teachers should examine pupils' medical records. Evidence of poor health in earlier grades warns the teacher to consider the skills, concepts, and habits included in the program of these earlier grades and to measure the extent to which they may be deficient in the retarded reader.

Personality Factors

Emotional difficulties are found among retarded readers, but, as Dr. Traxler has indicated, research has failed to define the extent to which personality maladjustment may be the cause or result of reading retardation.* Some writers believe that reading disability is a symptom of basic emotional disorder and that treatment of the reading problem must be preceded or accompanied by attention to the emotional difficulties. Personality traits that have been suggested as causes of reading failure are dependency on one's mother and lack of responsibility, excessive timidity, and predilection against reading or against all school activities (29). W. H. Missildine (27) noted emotional disturbances due to sibling rivalry and to mothers who were hostile, tense, perfectionistic, and over-indulgent. George D. Spache (39) found retarded readers more likely than non-retarded ones to be submissive towards adults and aggressive toward peers. Max Siegel (35) found no pattern typical of retarded readers as compared with other emotionally disturbed children but noted fear and anxiety, some-

* Page 12.

times accompanied by aggressiveness and hostility, sometimes by withdrawal.

Lack of interest, inattentiveness, daydreaming, defeatism, truancy, and nervous mannerisms have been reported as concomitant with reading disabilities (31, 33, 37, 44). Since emotional disturbances may result from reading failure, continued failure aggravates these conditions. The older the retarded reader is, the more intense and deep-seated these emotional reactions may become.

What should the classroom teacher do when signs of emotional disturbances are apparent among retarded readers? The type and degree of personality maladjustment (together with other causative factors and the nature of the reading problem) must be considered in deciding whether individual or small-group instruction is advisable, or whether no immediate attention should be paid to reading. The teacher may refer extreme cases for psychological therapy (when it is available) and advise against immediate remedial instruction. A skilled counselor or remedial teacher may provide both therapy and help in reading (5, 12). In many cases, a teacher's best approach may be a well-planned instructional program based on sensitive understanding of the pupil's emotional problems, his needs in reading, and his interests. Special efforts to motivate interest in learning to read are almost always necessary.

Environmental and Social Factors

Among the environmental and social factors that have been studied are the attitudes and interests of parents, language spoken in the home, economic status and neighborhood conditions, adjustment to school, and experience background. One of the most significant findings of Robinson's study (31) was that maladjusted homes and poor intra-family relationships existed in 54.5% of her cases. Sheldon and Carrillo (34) noted that as the number of books in the home increases, the percent of good readers increases and that good readers come most often from homes where parents have reached higher levels of education. Marion Monroe and Bertie Backus (29) found that illiteracy and foreign language in the home and insufficient background were characteristic of reading failures. In a study of 100 ninth grade poor readers, Paul Witty (43) listed the following characteristics: meager background of experience, impoverished play life, repeated failure in school, and frequent change of school.

The teacher's role in relation to many of these suggested influences on learning is necessarily slight. Understanding pupils' environmental needs, however, teachers can enrich classroom libraries, take into

account experience backgrounds that may be lacking, and select materials and methods geared to their pupils' environment.

Educational Causes

Expert opinion, rather than research findings, must be called upon in exploring another possible source of causes for reading failure: ineffective educational practices. In American schools employing a variety of educational methods, the majority of children learn to read. Nevertheless, other children of equal intelligence are seriously limited in reading skills. William Kottmeyer (21), for example, reports that 2,169 out of 7,380 eighth grade graduates in a large city system read at or below norms for the sixth grade. While it may be argued that additional causative factors tend to nullify the effects of teaching methods that are successful with most children, research is still not clear as to *what* physical, emotional, and environmental factors impede some readers or *why* some pupils seem unaffected by similar characteristics. When corrective instruction improves the skills of retarded readers, it seems safe to infer that unsuitable teaching practices have been at least partially responsible for reading retardation. Many studies demonstrating the improvement of reading ability through specific educational methods have been reported (41) and will be described in another section.

Durrell's recent listing of educational causes of reading difficulties (8) furnishes the background for the following summary:

1. *Lack of adequate background to perform the reading task set.*—For example, junior high school pupils may have insufficient meaning vocabulary, inadequate word-analysis skills, or inadequate background for comprehension tasks. In Witty's study of 100 poor readers in the ninth grade, 32 percent were found lacking in the ability to attack new words, and 56 percent were deficient in vocabulary (43). Spache (38) says "poor readers of all ages seem to be unfamiliar with phonic or structural analysis, use of context, or any of the other means of discovering the pronunciation and meaning of unknown words."
2. *Failure to master the early elements on which later abilities are based.*—Teachers who present "grade level skills" to all pupils ignore the possibility that the learning of lower level skills may have been fragmentary—for a variety of reasons.
3. *Confusions resulting from instruction not correctly adjusted to the level and learning rate of the child.*—Learners whose developmental rate is slower than average become increasingly confused if teachers set a pace of instruction that is too fast (14).

4. *The acquisition of faulty habits which impede progress.*—Durrell says “. . . learning to read is a highly complex process providing countless opportunities for confusion in learning.” When teachers fail to recognize the pupil's faulty technique, it remains to impede progress and create more confusions. Teachers' failure to analyze the nature of the individual's reading skills and to plan systematic instruction on the basis of thorough knowledge of the pupil is probably a major cause of continued retardation.

Concluding Statement

Causes of reading disability are multiple. All research points to this conclusion, either directly as in Robinson's study, or indirectly by the very inconclusiveness of studies related to single factors. Future research should be concerned with broad studies, centered in schools rather than clinics, involving both retarded and able readers, to determine the interactions among causative factors. Of the physical, emotional, mental, environmental, social, and educational factors that may affect reading ability, what combinations produce what results?

Three implications for the classroom teacher, in addition to those already mentioned, are:

1. Insight into the causes of reading failure requires study of all phases of the learner: his health, home and family, personality, experience background and learning abilities, including detailed evaluation of the complex of skills that constitute reading. Adequate study of many of these facets is beyond the teacher, or reading clinician, or psychologist. Each of these persons needs to know when to make referrals when his diagnostic tools prove inadequate.

2. Since causation is multiple, remediation must also use many approaches. A single method of attack may be detrimental as well as useless.

3. As research in causation is tentative, so is diagnosis of individual cases. As hunches are confirmed or rejected by new insights, plans for treatment must also be changed. Diagnosis of the complex process of reading is continuous.

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What Does Research Tell About the Reading Interests of Junior High Pupils?

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AT the University of Texas a few years ago, I had a student teacher in an Austin junior high school who was a master in motivating student reading. This student teacher knew the personal reading interests of each pupil. Through observation and a reading questionnaire she had learned the favorite books, magazines, and authors of her students. From each student's cumulative reading record, which was passed on from grade to grade in the junior high schools, she knew the titles which these pupils had read and enjoyed. She knew their reading scores on a standardized reading test. And she knew the research findings concerning the reading interests of early adolescents. Also she had managed to read many of the new books for adolescents. Thus, she was able to guide the reading of her pupils, rather than turn them loose on a *free* reading program.

Before class started, this student teacher would bring two or three armfuls of books to the classroom. Soon after the beginning of the class, she would hold up a book, usually one with a jacket containing colorful pictures, and ask a question or two about the book, starting with its title or book jacket. Then she would "sell" the book by telling about the conflict in it, by reading an exciting or humorous paragraph, by showing illustrations, and by getting a student who had read the book to tell how much he liked it. At this point, some boy and girl in the class would usually ask, "May I borrow that book?" Or the student teacher would say to one of her students, "John, you liked *Rocket to the Moon*. I'm sure you'd like this book, *The Lonely Sky*. Why don't you try it! Then, if you don't like it, return it in a day or two and I'll help you find one you do like."



Courtesy, Mosholu Parkway Junior High School, New York City.

Their teacher is getting the right books into the right hands—and these students want to read!

Sometimes the student teacher spent one or two periods getting the 'right book in the hands of the right reader. After everyone had a book to read, students were given two or more free reading periods in class to get interested in the book. In brief, her purpose was to motivate extensive reading and to develop the habit of reading worthwhile books.

Perhaps, too, her utilization of reading interests helped the pupils to grow in reading ability, especially in vocabulary knowledge and reading comprehension. Two recent studies seem to support this idea.

In a recent controlled experiment involving 100 ninth-grade pupils in a large metropolitan high school, Margery R. Bernstein (2)¹ found that there was a definite relationship between a pupil's interest in fiction and his comprehension of it. Two narrative selections equal in readability (according to various formulas) but widely different in interest were given to the pupils. Comprehension scores made by the pupils on the more interesting selection were significantly higher statistically than the scores on the other selection. Miss Bernstein also

¹ Bibliographical references are listed on pages 32-33 at the end of this article.

reported that "The relationship between interest and comprehension existed for pupils of high and low reading ability and for retarded and non-retarded readers alike." In this study pupils also felt that the interesting material was easier to read.

In a study concerning the readability and interest of selected books for 113 retarded readers in grades 4-8, Robert W. Ridgway (7) also noted the importance of interest in reading. He found that "When interest in a book was high, the pupils . . . tended to read above their measured reading levels. . . . Books with high interest scores were frequently judged as about right in difficulty even though rated two or more grades above the measured reading level of the readers. Books with low interest scores were frequently rated as too hard even though actually on or below the reading level of the reader."

In a companion study dealing with the readability and interest of 20 simplified books for retarded readers in grades 7-12, Herbert I. Bruning (3) concluded that "There appears to be a rather definite relationship between a pupil's interest in a book and his rating of its difficulty." Books written especially for retarded readers were ranked highest in interest by the retarded readers. Adapted classics were ranked second. In addition, Dr. Bruning found that when interest factors are comparatively weak, pupils' judgments of a book's difficulty compare favorably with the readability difficulty indicated by the Dale-Chall formula. However, when the interest factor is strong, the formula does not seem to give all the information needed.

In this situation, the interest factors inherent in the book and the motivation which the pupil brings to the book are important. Perhaps we need more research to determine how well present readability formulas measure the interest which a book has for a youth or a youth brings to a book.

What do we think we know about the reading interests which pupils have in common between the ages of 12-15? We think we know a lot. For more than 20 years there has been a continuous flow of studies about reading interests of boys and girls.

In the main, these studies have agreed on the following:

1. Animal stories are enjoyed by both boys and girls in the junior high, especially in the seventh grade. Favorites include a hero or heroine about the same age as the reader or slightly older. Titles such as *Lassie Come-Home* by Eric Knight, *My Friend Flicka* by Mary O'Hara, *Old Yeller* by Fred Gipson, *The Black Stallion* by Walter Farley, and *Big Red* by Jim Kjelgaard are seldom resting on library shelves.

2. Exciting adventure stories have always attracted teen-age readers. According to a study by Evangeline C. Malchow (5), adventure stories appeal most when they contain suspense and serious danger.

Boys like bloody, violent adventure stories with dangerous situations. *White Falcon* by Elliot Arnold, *Dark Frigate* by Charles Boardman Hawes, and *Call It Courage* by Armstrong Sperry are typical examples. Girls prefer mild adventure with a bit of romance about other girls fifteen or older. *Lasso Your Heart* by Betty Cavanna is a typical favorite.

3. Mystery stories which are not too involved and which include young people rate high. J. Harlan Shores (9) has reported that "As children progress through the grades (4-8) they show increasing interest in mystery stories and decreasing interest in cowboy stories and fairy tales." Girls seem to enjoy mystery stories more than boys do (4, 6). *Who Rides in the Dark?* by Stephen Meader, *Mystery at Boulder Point* by Eleanore M. Jewett, and *The Secret Cargo* by Howard Pease are the type of mystery stories that intrigue junior high pupils.

4. Humor which is not subtle or ironical is often enjoyed by both boys and girls, especially those who are above average in intelligence (5). Cartoons, jokes, puns, limericks, exaggerated situations and tall tales are especially liked by most adolescents. Unfortunately, humorous books appealing to early adolescents are in short supply. Among those widely read are *Ben and Me* by Robert Lawson, *The Centerburg Tales* by Robert McCloskey, and *Cheaper by the Dozen*, by Frank B. Gilbreth and Ernestine G. Carey. Hank Ketcham's cartoon books featuring Dennis the Menace are scanned by tens-of-thousands of early teen-agers.

5. Patriotic stories are liked by many boys and girls, according to George Norvell's comprehensive study of the reading interests of over 50,000 pupils in grades 7-12 in New York State (6). Among today's favorites are *Thirty Seconds Over Tokyo* by Ted Lawson and Bob Considine, *The Story of the U. S. Marines* by George Hunt, *Of Courage Undaunted* by James Daugherty, and *Johnny Tremain* by Esther Forbes. Average and slow readers enjoy many of the titles in the American Heritage series, the American Adventure series, and the Landmark series. Teachers of social studies, core, and language arts have many excellent titles of historical fiction available to recommend to their pupils.

6. Biographies which describe the youth of famous men and women are interesting to average and bright pupils (6). Both boys and girls like biography; however, boys prefer biographies of men. Girls have a slight preference for biographies of women (6). In reading biography, many teen-agers are seeking clues concerning ways to become successful and to lead happy, useful lives. Biographies such as *Thomas Alva Edison* by H. Gordon Garbedian, *Narcissa Whitman* by Jeanette Eaton, *Abe Lincoln Grows Up* by Carl Sandburg, *We Came to America*, edited by Frances Cavanah, *River Boy* by Isabel Proudfit, *Albert*

Schweitzer by Jo Manton, and *The Jim Thorpe Story* by Gene Schoor are in demand. Unfortunately, there are not as many biographies of women as there should be to satisfy girls' interest in this type of literature.

7. Science and aviation stories appeal to most boys. In his nationwide study of reading interests of over 6,000 pupils in grades 4-8, Dr. Shores (9) found that boys are more interested than girls in reading about astronomy, geology, physical geography, science, space travel, Indians, airplanes and rockets. Dr. Norvell (6) also found that boys have a greater interest in reading about science than girls. Librarians report that current favorites include *The Spirit of St. Louis* by Charles Lindbergh, *Everyday Machines and How They Work* by Herman Schneider, *The Silent World* by J. Y. Cousteau, *This Fabulous World of Insects*, edited by Charles Naider, *The Exploration of Space* by Sir Arthur C. Clark, and *Great Adventures in Science*, edited by Helen Wright and Samuel Rapport. *Rocket Jockey* by Philip St. John, and *Space Cadet* by Robert Heinlein are among the science fiction titles that propel boys away from this confining earth. Two hundred outstanding science books are annotated in the pamphlet "Books of the Traveling High School Science Library," published by the American Association for the Advancement of Science and The National Science Foundation.

8. Boys like stories and books about outdoor life. Dr. Norvell found that girls, too, enjoy stories of school games and poems about sports (6). There is an abundance of sports stories for boys but not many for girls. Unfortunately, plots are often trite and characters stereotyped. Stories of outdoor life involving danger or animals and featuring a girl as a main character often have strong appeal to girls. Examples are *High Trail* by Vivian Breck, and *Going On Sixteen* by Betty Cavanna. *Wonder Boy* by William Heuman, *Backboard Magic* by Howard Brier, and the stories about famous American athletes by Gene Schoor and Henry Gilfondy circulate widely and rapidly among boys, provided the books are readily available. Sports stories often have a special appeal to boys who are reluctant readers or who are slow learners (5).

9. Junior high girls, especially those who are thirteen or older, enjoy stories dealing with dating, romance, sentiment, and family relationships. Girls at this age, and some boys too, are concerned about problems of growing up and social relationships. Their interests may be partly satisfied through books like *Cress Delahanty* by Jessamyn West, *The Newcomer* by Clyde B. Davis, Paul Annixter's *Swiftwater*, and Nancy Barnes' *The Wonderful Year*. However, many teen-age books in this area are replete with saccharine situations, unrealistic solutions, and false values.

The importance of dating in the eyes of teen-agers is reflected in the sales of the most popular of the Teen-Age Book Club's paperbacks. Close to 300,000 copies of *Boy Dates Girl* have been sold. *Your Manners Are Showing* by Betty Betz is another favorite. Aubrey Shatter (8) found that girls like magazines dealing with fashions, romance, movies, and homemaking. Studies by Robert L. Thorndike, George W. Norvell, and other persons have agreed that most boys in their early teens reject narratives in which girls or women play leading roles or in which there is a considerable amount of romance (10, 6, 4). Occasionally, however, boys who are becoming interested in feminine behavior will ask a trusted school librarian for books by Betty Cavanna, Mary Stolz, and Rosamond Du Jardin.

There are many other research findings concerning reading interests of early adolescents. The amount of book reading done by young people, especially by boys, frequently begins to drop off sometime between the ages of 12 and 15. However, according to a study by Paul I. Lyness (4), the amount of newspaper and magazine reading done by boys increases somewhat with age.

Miss Malchow, Dr. Norvell, and Dr. Thorndike have reported that except for mild adventure, biography, and humor, the sex of the reader is a significant factor in their choice of reading materials. At the onset of pubescence, and sometimes before, girls want stories with romantic interest. Television and other unknown factors may be causing these interests to come earlier for girls than they have in the past. Other researchers have concluded that literary selections offered in the classroom have had more appeal to girls than to boys and that more girls than boys like to read (9).

Superior, average, and slow pupils like "equally well the selections commonly studied in high school," concluded Dr. Norvell in his New York study. In an earlier study of the interests of 3,000 youths, however, Dr. Thorndike found that bright children read a wider range of titles and more science, biography, and informational material than other pupils, and that very bright youths read literary selections at an earlier age than average children. He concluded that bright children's interests are most like those of slow children who are two or three years older (10).

If a literary selection is well liked in a particular grade, Dr. Norvell found, it will usually be liked by pupils two or three grades above and below that grade. Also, there seems to be little difference in the reading interests of children living in metropolitan, urban, and rural areas (6).

What effect does television have on reading? There are varied views on this subject. William D. Boutwell, Director of the Teen-Age Book Club, has declared that "movies and television are books' best

friends." He says that teen-agers look at films such as *Shane* and then read the book *Shane* by Jack Schaefer. In his latest report on television and its appeal to youth, Paul Witty (11) states that the average amount of reading done by pupils has not changed greatly during the past few years. In the May 12, 1956, issue of *School and Society*, he writes, "In 1955, 43 per cent of the pupils stated that they read less; 45 per cent, more; and 12 per cent, the same amount The group that reads less is regarded as a real problem by many parents."

There are, of course, possible weaknesses in some of the research concerning pupils' reading interests. In answering questionnaires about likes and dislikes, young people react the same as adults; they don't always say what they think. Furthermore, when youth are asked to name their favorite books, they are restricted in their response by what they have read or have had an opportunity to read. They may know *Two Years Before the Mast*, but not *Carry On, Mr. Bowditch*; or *An Old-Fashioned Girl* but not *Cress Delahanty*. Also, to a limited extent, reading interests change with the times. During and after wars, war stories are popular; during periods when dangerous mountains are scaled, books on mountain climbing have a vogue; and in scientific periods—like the present—youth are fascinated by books describing the wonders of the universe.

Briefly, no research can tell us all we need to know about our pupils' interests. We need to know the reading interests adolescents have in common, but we also need to be alert to what Henry and Jean are interested in reading on a certain day and what they would probably learn to like if we opened the gates to a wider, richer range of reading experiences. And that means that the junior high teachers need to know not only the best books of the past for teen-agers, but also the scores of thrilling books of excellent literary quality being published every year. Then the teacher can guide adolescents while they explore and enjoy the "wonderful world of books" together.

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PART 2

Part II. Developmental Reading

How Can a Junior High School Staff Get a Schoolwide Developmental Program Underway?

By

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THERE is something to be said for the crusader. It is true that Don Quixote was a crusader of a kind; it is also true that his zeal and interest were centered on windmills. The crusader for a schoolwide developmental reading program is not jousting with windmills. His interest is in a real problem. And although he must have the enthusiasm of Don Quixote, he needs a number of Sanchos. He needs the help of every member of the junior high school staff: teachers, supervisors, and administrators. Without them he can only wander aimlessly, making desultory attacks on the reading problem.

The crusader believes in a developmental reading program,¹ one in which all teachers in the junior high school make systematic provision for teaching those reading skills necessary for learning in their subjects. He knows that such a program will, within the framework of each course of study, enrich vocabulary and improve basic silent and oral reading skills for all students as a part of regular classwork. He is sure that no developmental reading program can be successful unless it encourages widespread recreational reading. Thus, in the unity of instruction in all the areas of reading, the crusader recognizes the complete developmental reading program.

The impetus for a schoolwide program of developmental reading can come from an individual on the junior high school staff whose personal enthusiasm is such that he may well be called a crusader. It is true that the impetus might better come from a recognition on the part of the entire staff of the need for teaching reading in the junior high school. It is difficult to discover a member of a junior

¹ The editor's definition: A developmental reading program is a sequential program of instruction which (1) reinforces and extends those desirable reading skills and appreciations acquired in previous years and (2) develops new skills and appreciations as they are needed to comprehend and enjoy advanced and complex forms of written communication.

high school staff who is not aware of the need for teaching reading. He is certainly aware of the elementary school practice of automatically promoting nearly all children at the end of a school year. He cannot be unaware of the range of reading abilities in a given class, especially if he knows his students' scores as revealed by a standardized test.

The teacher is, in most instances, a content specialist. He would be the first to admit that his subject has a pattern, a vocabulary, a content. He knows that if he is to teach, and if children are to learn, he cannot supply all of the desired experiences through activities, through trips, through demonstrations. His students must read; they must, through reading, integrate their vicarious and life experiences and use their newly acquired knowledge in solving personal and group problems.

The impetus for a local schoolwide developmental reading program may also come from supervisors, administrators, study councils, consultants on reading, state education departments, colleges and universities, or interested or disgruntled local citizens. It is certain that all these groups may play a significant part. However, unless there is genuine interest on the part of the local staff, unless there is the realization that *no other single program which the staff might plan would have as far-reaching an effect on improvement of the total teaching-learning situation in the school*, then any developmental reading program, regardless of source of impetus, may not be fully effective. If there is full recognition of the importance of reading at the junior high school level and sincere interest in improving reading skills and practices, then the problem of how to get a developmental program underway becomes relatively simple. Interested people can always find "a" solution to a problem.

Let us assume that we have an interested staff. The teachers recognize the importance of a remedial reading program designed to provide help for those students whose progress in reading is not in harmony with their mental ability. They recognize the importance of clinical help for those students whose physical, mental, or emotional handicaps are most serious. They wish to have a part in a program which will help all students—slow, average, superior—to read to their maximum potentials.

There are at least three types of action the staff may propose to get a schoolwide developmental reading program underway. Some teachers may indicate that they have no reading problems in their classes except those involving a few students. This reaction may be expected from teachers of those junior high school subjects which, by nature of their content, tend to eliminate less able students. It is to be expected from teachers who do not understand that reading improvement should be continuous. The teacher in the subject field then proposes the expert solution: hire a reading specialist to take care of the few reading problems. Now all will be well in "the best of all pos-

sible worlds." This is "a" solution. However, it hardly provides a schoolwide developmental reading program. Some few parents—those of the forty or fifty students whom the reading specialist is able to help—are grateful. Also, there is some help for teachers desiring assistance with difficult reading problems, now that expert help is available. But this is not a schoolwide developmental reading program, nor is it the solution to all the junior high school reading problems.

At this point the staff needs the crusader. He may be a member of the English staff or the mathematics staff; he may be a consultant, a supervisor, or an administrator. He is the person who knows what a developmental reading program entails; he believes that such a program will do what no short-term program will ever do. His enthusiasm may come from his own reading and study; it may come from his participation in a reading workshop or from instruction at a college or university; it may be simply a strong personal conviction expressed in the statement: "Every teacher should help improve the reading skills of his students."

The crusader must acknowledge the importance of the reading specialist. But he proposes that before moving hastily to "a" solution, each member of the staff should, as George W. Norvell proposed, "read one book devoted primarily to the teaching of reading in the elementary grades and a second dealing with the subject on the high school level."² The crusader may even be able to suggest titles and authors. (A sample of such a bibliography appears at the end of this paper.) Above all, he must convince the staff that the problem is not quite so simple in its solution, that the proposal is hardly one which will provide a schoolwide developmental reading program.

Now let us suppose that each member of the staff has read a professional book or two on the teaching of reading. Let us suppose that the staff agrees that more needs to be done. A second type of action is now proposed to get a schoolwide developmental reading program underway. Reading convinces the staff that the problem is more complex than it appears on the surface. Staff members seize upon certain terms they know: *vocabulary building, reading aloud, reading for pleasure, reading to discover central theme or purpose*. These terms are within the province of the English teacher; they belong in the language arts program. To implement the proposal, it may be suggested that the teaching of reading skills be left entirely to the English department.

Or it may be proposed that a special reading class be set up for all seventh graders or all eighth graders or all ninth graders. A title can readily be found for the course: *Basic Reading or Reading Improve-*

² George W. Norvell. *Reading in the Secondary School Program*. Albany, N. Y., The University of the State of New York Press, 1962, p. 7.

ment. The course may be credit or noncredit, depending on administrative decision.

At this point we again need the crusader. He needs to admit the strengths in such approaches, but he needs to convince the staff that reading instruction is the responsibility of the general science teacher, the mathematics teacher, the homemaking teacher, the industrial arts teacher, the music teacher, the citizenship education teacher—the responsibility of every member of the teaching staff. He needs to be able to convince his fellow teachers of what some research has shown: that giving reading instruction in the content field is superior to providing it in another content area and expecting a transfer. He can certainly admit that the teaching of reading skills in the English classes would ensure extending the reading program for all students, and that an extra class in reading would certainly focus attention on the necessity for improving common reading skills. However, he must point out that these proposals assume that the English teacher, or the reading teacher, can successfully teach the reading skills involved in *all* subjects. He must further indicate that the proposals indicate a transfer of learning which may not be assumed. He may propose some questions: Is it the responsibility of the English teacher, or the reading teacher, to teach the symbols of music, the language of mathematics, the signs and symbols of science, along with the understanding of metaphor? Is it the responsibility of the English teacher, or the reading teacher, to teach the interpretation of bar graphs, the interpretation of blueprints, along with the inverted sentence patterns of poetry? In addition, the crusader must point out that in isolating reading as a "subject" at the junior high school level, the student is given the impression that reading is important only in the English class or the reading class, when it is actually at the heart of eighty percent or more of the learning in almost every academic area.

If the crusader has done his job well—and if his fellow staff members are still speaking to him—we have arrived at that point where plans can be made to implement a developmental reading program for the junior high school. The staff has a general knowledge of the reading problem; they know there are ways to improve reading practices in every content area; they have read books! They have some of the spirit of the crusader; they are willing to attack reading problems on a cooperative basis. They are now ready for organization, for the requisite planning to make a developmental reading program effective.

Planning the Program

It should be rather obvious that our crusader has had the opportunity of presenting his views to the staff at meetings. How can such meetings become purposeful for a local school staff?

A few members of the faculty, with our crusader in tow, may well request the principal to call a special faculty meeting or to provide time within a regularly scheduled meeting to discuss the improvement of reading on a schoolwide basis. During the time provided, the staff, under the leadership of the principal, needs to agree on the value of launching such a program. If the staff is convinced of the desirability for the program, there will be no need for structuring the meeting. Discussion will be spontaneous. If, however, the principal feels the need for some structuring, this may be provided by the staff committee which approached the principal, by the crusader, or by the principal himself if he is familiar with the reading field. General faculty discussions of reading improvement should make the principal more aware of staff interest. No matter what the source of stimulus may be—workshop, crusader, state department, reading consultant, or disgruntled taxpayer—if the principal is convinced of sufficient staff interest to maintain a program, he should appoint a committee on reading.

The membership of this committee may well vary with the size of the school and the expressed interest of staff members. In the small junior high school, the entire faculty may comprise its membership. If the faculty numbers more than twenty, or if there is departmentalization within the school, then a representative committee needs to be chosen. Its membership should include the principal or his representative, faculty members from each of the departments or academic areas, student and parent representatives, and faculty members who represent special services such as those offered by the guidance director and the school physician.

This permanent committee can serve as both a steering committee and a planning committee. It should choose necessary officers at its first meeting so that the program to be planned may be implemented.

During the course of the next three years, or as long as the program for a particular school seems desirable, it seems certain that the committee will find it necessary to meet enough times to discuss and to plan for some of the following:

1. The status of reading instruction in the school (the learning year)

An examination of the present status of reading instruction might result in plans for some action by the entire group, or by a subcommittee. Action taken might include:

- a. administering a student questionnaire on reading problems
- b. taking an inventory of students' reading interests and habits
- c. administering a standardized diagnostic survey test in reading

- d. surveying the staff's training in teaching reading
- e. visiting elementary school classes
- f. surveying the use of the library
- g. surveying the technics used to improve the skills of normal readers
- h. identifying students who need special help
- i. building a professional library
- j. holding reading workshops
- k. providing in-service training programs in reading

These suggestions are indicated so that the committee may go to the general faculty in as short a time as possible with an outline of a program for the first year. Since almost every school has available the results of recent reading tests and the results of tests of mental ability, a future staff meeting may well be devoted to a discussion of the results of these tests in relation to the individual student.

2. The developmental reading program for the school (the orientation year)

During the second year the committee should help the teaching staff to become familiar with basic reading skills that are common to all reading situations, including oral reading. The staff needs to understand that a basic skill, such as adjusting rate to purpose and content, should be taught in each content area in the subject context where it is functional. Since the psychology of learning supports repetition of skill instruction in different contexts, the subject matter specialist must plan *how* to teach other basic reading skills, such as those involved in reading for details, reading for main ideas or central thought, reading for recognition of word meanings, reading for problem solving, reading for inferences or implied meanings, and reading for evaluation and criticism *in his own subject area*. The staff needs to put down on paper exactly *how* each member can improve reading by dealing with a basic skill as it is needed in the assignment given.

Reading rate, for example, must vary for map reading and newspaper reading in the citizenship education class. It must also vary for newspaper reading and sonnet reading in the English class. The responsibility for teaching the adjustment of rate to purpose and content belongs to both the English and the citizenship education teacher, as well as to the mathematics teacher who is presenting a theorem. Different approaches would also be used by different subject matter teachers who instruct their students in how to read for details. For example, in citizenship education classes pupils might learn to follow details in the instructions of a short-answer test or to distinguish between

relevant and irrelevant details in a chapter describing the formulation of the Bill of Rights. In mathematics classes, procedures might require the construction of a figure based on reading detailed instructions; in homemaking, procedures might involve reading to discover details—the ingredients necessary to make a cake. Industrial arts students might read to note the details for a scale drawing; science students might read to note the details necessary for performing an experiment; physical education students might read for the details inherent in the rules for playing a game. In each area, there are occasions when reading for details is essential for learning. These occasions need to be noted, to become a part of the course of study in each academic area. Unless each staff member teaches basic reading skills in relation to the content of his course of study, the program in developmental reading will become merely a fact-finding expedition.

It should be pointed out that each of the procedures mentioned above might, with a different emphasis, become a part of teaching the skill of problem solving. Teachers must learn to indicate the “how” in relation to all basic skills for the plans they prepare in each academic area. This “how” must be put on paper for experimentation and use during the year.

From a discussion of reading within the committee, there might come plans for demonstration teaching in the content areas, preparation of reading guides, development of classroom libraries, the preparation and distribution of short printed materials indicating the “how” in each of the academic areas, presentation of films showing methods of teaching reading, development of testing programs, development of teacher devised tests to evaluate the results of experimental teaching, the time allocation for teaching reading in each academic area, and a chart suggesting when and where skills should be taught. During this year, the staff puts on paper its definite plans for teaching reading in each academic area.

3. *The developmental reading program in action (the teaching year)*

During the third year the committee should provide only that help requested by teachers. Plans should be made for evaluation of the program, for recording strengths and weaknesses as they are revealed, and for providing consultant services where these seem necessary.

If the 2 years devoted to learning and orientation have been well planned, the staff needs an opportunity to try the program in the classrooms during the third year. Teachers need a minimum of meetings; they do need to be helped as individuals when they ask

for help. Time is also needed to record their impressions of their teaching. These records will be used by the committee for evaluative purposes.

The possibilities for providing a developmental reading program for a particular junior high school are many. However, if the staff is motivated to attack the reading problem, it must be noted that the proposed program provides for one year of orientation, one year of training teachers to teach reading, and one year of teaching based on changed instructional methods.

Staff Responsibilities

The developmental reading program should be formulated by the staff in accordance with local needs. A particular school, for example, might form a Committee on Reading, select its leader, arrange for the testing of reading by the guidance director, obtain the results of tests of mental ability from the same source, draft and administer a questionnaire on reading problems of students, and provide the results of all three "tests" as a basis for discussion at a general faculty meeting. Or the observation of other school programs in reading might provide a point of departure for a discussion of the local reading program.

For a second staff meeting, teachers in all the academic areas might be asked to report how they improve the reading abilities of students. Or the meeting might be given over to English and elementary reading teachers to report how they teach basic reading skills. Certainly the librarian must be asked for her suggestions for extending interests and improving reading.

When a program has been adopted by the staff, certain responsibilities are assumed. Perhaps the person most responsible for the success of the program is the junior high school principal or his representative. This crusader-diplomat must provide leadership, if it is not to be found or evoked elsewhere on the staff. He is responsible for obtaining books, pamphlets, consultants, standardized tests, and films in whatever order they may be desired. He must supply stenographic help and duplicating facilities. He must supply in-service training programs if they are required. Most important, he must provide *time* within the school day for study, meetings, and the work which must be done in connection with the developmental reading program. The administrator needs to *know* and to *remember* that whatever sacrifices he makes in other programs in order to improve reading will more than compensate for temporary inconveniences to faculty and students. He, too, must know that there is no other single program which will have as far reaching an effect on the improvement

of the total teaching-learning situation in the school. And he should realize that in a schoolwide developmental reading program he has a most effective public relations program.

The general or academic supervisor, or the reading consultant, may act as the representative of the principal. At times he may be in active charge of the planning and the program. He should, above all, be the principal reading resource person for the local staff. He should maintain the professional library, take care of the details of each staff or committee meeting, ensure that materials for study and discussion are duplicated. He should recommend consultants to the principal and ensure that sound approaches to reading improvement are explored. He should actively seek help from his state department of education, from nearby colleges and universities. He should become, if he is not already, the reading consultant for the administration.

The teacher's responsibilities are certainly the greatest. He must study; he must learn; he must experiment. He must put the program into effect in the classroom using the methods he has learned. He must study the results of tests of reading skills as these results affect his students. He must realize as he works and studies that from his teaching of reading will come student habits and skills that will make his own work easier. Above all, as he helps plan the developmental reading program, the teacher must recognize the necessity for motivating wide reading in his content area. As soon as his students start borrowing books from the classroom library or the librarian reports to him a greatly increased circulation of library books in his content area, and the students want to talk about the ideas in these books, the teacher can be sure that he is helping the reading program.

When a staff has assumed these responsibilities, when it has planned a program in which it believes, and when it has effective leadership, the developmental reading program is on its way to success.

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What Should Be the Objectives of a Schoolwide Developmental Program?

By

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TO dream up objectives for a schoolwide developmental reading program is easy. But before I start dreaming, I need to consider how objectives become realities.

For instance, when leaders came to develop literacy among the Tarascan Indians on the Island of Janitzio in Lake Patzcuaro, they found the Indians had no interest in becoming literate. To realize their objectives, the leaders had to determine the needs and interests of the Indians. When the leaders helped the Indians with *their* needs and interests, they discovered the need to read, to write, and to compute as they moved in the direction of the fulfillment of their basic needs and interests.

I would say that we start toward our objectives by determining the needs of the children in our schools, the needs of their parents and the needs of our teachers. Then we help *them* realize *their* needs.

While helping them, we may have in mind the objectives of society that were agreed upon at the White House Conference on Education. To communicate them and to make them realities is much more difficult than was the development of the 14 statements.

Most people accept the idea that the schools need to develop a literate citizenry. Tradition, however, may block the realization of the objective. Neither the public nor all of our teachers are sold on the idea that reading is developmental. Neither are they sold on the idea that each individual matures at his own rate in reading as in physical growth. So teachers still ask, "What in the world did you teach them last year?" and "How in the world did he ever get to high school?" And the public asks, "Why *can't* he learn to read?"

Before I start discussing objectives, I would like to point out that too many goals may lead to confusion and rejection.

Most teachers realize the desirability of goals, but they must be realizable and understandable. Gunnar Myrdal, some time ago, pointed out our tendency to say one thing, do the opposite, and be unaware of the contradiction. We may write a fine set of objectives, yet continue practices as outmoded as blood-letting.

1. *My first objective of a schoolwide developmental reading program would be that the pupils read to learn while they learn to read.*

"Take the pupil from where he is" has become trite in sound and remains difficult to put into practice. Acceptance of the principle is necessary, however, if we really subscribe to the idea that reading is developmental.

If reading is developmental, then it can be learned through practice, just as golf is learned. People practice driving a golf ball because they want to play golf. Youths practice reading if they want to learn.

Our problem then is to determine what it is the pupil wants to learn and to provide the materials or experiences he will need to learn it. The job will be tough. We will need to consider his mental maturity, his experiences, his language maturity, his interest span, his physical comfort, his emotional health, his developmental tasks, the weather, and his peer group, to name just "a few" of the variables which must be taken into account. But we can do it if we want to and *if* we limit the number of pupils in each room.

"To read to learn" means teaching students to translate symbols into ideas or feelings and both into behaviors. To teach youngsters "to read to learn" means teaching them to read silently for comprehension. It also means teaching them to react to the material. Is it factual? Is it opinion? Do you like it? Why?

It means teaching boys and girls to integrate the material comprehended with other knowledge, feelings and experiences. For example, does the account read agree with another textbook version of the American Revolution?

It means teaching youth to project the best of their reading experience into their own personal and social behaviors. In short, we teach pupils to read to learn so that the objective of a truly literate citizenry is realized. Our representative Republic needs people who think independently, critically, and appreciatively, just as it needs citizens who have developed operational ethics and moral values.

2. ***My second objective would be teaching children to read for recreation.***

A teacher may not realize this objective if she insists that every eighth grader read "Evangeline." She may not realize this objective because she just *loves* to read aloud to her pupils with a voice more suited to an air terminal than to a classroom.

Our teacher may ask the pupils to describe the author's style, to find 20 similes in "The Lady of the Lake," to write a one-sentence summary of the meaning of "Thanatopsis," or to carve a soap statue of Long John Silver. What she is, what she does, the way she feels will influence her pupils' attitudes toward recreational reading.

If, for instance, she has a period for "free" or recreational reading and she, too, grabs a book that she can scarcely wait to read, more of her pupils will want to read and will enjoy reading than if she had them read while she counted the Junior Red Cross contributions or made out reports or wrote personal letters.

In developing recreational reading, I would want a library of books collected cooperatively by the pupils and me. We could determine the amount of money allotted to us for books, have pupils recommend selections (after studying catalogues and book lists and after visiting book stores), and have the final selections based upon pupils' desire and the size of the budget.

In addition to the anthologies with which we started, we would then have books to match individual interests and needs. Thirty pupils would then be reading thirty *different* books with not a word about "grade level" or comparative worth. The chances of having "the right book for the right pupil at the right time" would be increased.

To realize these two objectives, much work needs to be done for the education of the public and of the teachers.

Parents need to understand that reading is a culture trait. Children read if they are reared in a culture where reading goes on. If children do little reading in their homes, they may not have the basic incentive on which to build our developmental programs.

Lucky is the child who comes from a home where nursery rhymes, folk tales, Bible stories, daily newspapers, magazines, picture books, and story books have a place. Lucky the child whose parents understand that all children are not ready to read at six years, six months; that boys may be slower than girls in language development; and that having a child develop normally is more important than forcing him to try to read as well as his brilliant older sister. Lucky the child whose parents have faith in his ability to read and will stand by him in the conviction that he does not belong in the slowest reading group.

But our job of "taking the pupil from where he is" becomes complicated unless we understand parents' needs, attitudes, and interests. The complications are lessened, however, when work groups take the place of ability groups, when the school's reading program is *developmental* rather than *remedial* (especially in its semantics and practices) and when reading is put in its proper perspective. Reading is *not* more important than the child's mental or physical health; it is *not* more important than learning; it is *not* more important than doing the right thing. Reading ability, however, affects a child's mental and sometimes physical health, determines the quality of much of his learning, and points directions for his behavior.

The complications are lessened also when each teacher is willing to "take the pupil from where he is" and is willing to teach the pupil to read and to study the particular subject being taught. The reading of arithmetic is quite different from the reading of social studies. Yet, frequently pupils try to study both in exactly the same way.

Certainly subject matter teachers need to understand that each subject (in fact, sometimes each of several textbooks in the same subject) has a somewhat specialized vocabulary. One textbook may have more abstractions, hence be more difficult for some readers. One may have more words familiar to children of a rural culture and hence be more difficult for urban children.

Also different teachers expect different results from reading materials. One teacher may place a premium on memorization—another, on thought—another on the "right answer." All need to understand that symbols are meaningless unless we bring experience to them and that reading is but a part of study. It is thinking about the reading and its application to life that constitutes the important element of study. Studying in the way the instructor expects the material to be used is another important element. (It's especially important for pupils who wish to receive passing grades in the courses.) Complications may come from the school's physical plant, lighting, room temperatures, seats and tables for reading, library regulations, and dozens of other factors.

Our objectives are simple. We want to teach pupils to read to learn and to read for fun.

Our job is hard, for we need to communicate *our* objectives to people who have *theirs*. When their objectives become ours and ours become theirs, we can make headway.

We do not communicate our objectives to tired parents by dragging them out evenings for P. T. A. meetings so that Susie's room may win the attendance banner. We do not communicate them to the public through newspaper articles full of "pedageese."

We do not communicate our objectives to tired, overworked, underpaid teachers in 4 p. m. meetings. And surely we do not communicate them in bulletins beginning, "You will"

To communicate them successfully, we will take our lead from successful leaders who long ago learned that people gain leadership and communicate objectives as they serve the needs and interests of their followers.

What Experiences, Activities, and Materials Are Helpful in a Developmental Reading Program?

By

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THERE has been, during the past 5 years, much criticism of reading instruction in our schools. Some of the criticism is justified despite the fact that studies show clearly that our schools are doing an effective job in teaching reading—better perhaps than during any period in the past. And this outcome is being obtained today despite mounting enrollments and the distracting influence of TV and related pursuits which bid for pupils' leisure. There is evidence, too, that many children and youth are reading widely. For example, *Business Week* (1) reports: "Actually book sales have been moving up. . . . And for those worry about 'Why Johnny can't read,' children books have skyrocketed event more."¹ However, a great need exists in junior and senior high schools today for the provision of experiences in reading of high interest and of a sufficiently diversified nature to meet the needs of the various reading classes.

There is encouraging evidence that attempts to improve the reading ability of high school students are generally successful and that many poor readers are now learning to read effectively. In a recently published book, Elizabeth Simpson describes a number of newly developed and highly successful programs (2). Moreover, there is a growing tendency in our junior and senior high schools to initiate developmental reading programs designed to satisfy students' interests and meet their needs, and hence to lead them to enjoy reading and to read widely.

Characteristics of a Developmental Reading Program. (3)—A developmental reading program seeks to provide opportunities for students to cultivate reading skills throughout the full range of education, including the junior and senior high school and, when necessary,

¹ Bibliographical references are listed on page 59 at the end of this article.

n college. Also, the developmental approach recognizes various purposes and needs for reading. Some needs relate to common attainments or "developmental tasks" on which happiness and adjustment depend. Other needs which are highly personal are significant for individual adjustment. Although some needs are, of course, temporary and transient, others constitute the basis for long-range objectives to be satisfied at different times. A developmental program seeks to evaluate such needs and to plan for their fulfillment in the most beneficial manner.

A developmental program, however, depends on other experiences and activities operating in association with reading; it does not rely on reading as the sole basis for satisfying human needs. Adequate satisfaction implies an effective relationship of reading to other experiences in the individual's total activity pattern.

Equally important, developmental programs seek the extension of interests. The extent to which teachers utilize, extend, and develop the interests of their pupils is a good criterion of the value of their instruction.

Thus, a sound reading program recognizes the value of systematic instruction, the utilization of pupil interests, the fulfillment of their developmental needs, the articulation of experience in reading with other types of worthwhile activity, and the extension or furthering of their interests. By this approach, steady growth in reading skill and the attainment of emotional satisfaction are made possible.

The Necessity for a Developmental Reading Program in Grades 7, 8, and 9.—Developmental reading instruction is necessary in grades 7, 8, and 9 for several reasons:

1. Today the range of reading ability in most classes is large. In a typical seventh-grade class, for example, some pupils will read at the third-, fourth-, or fifth-grade levels. Others will cluster around typical sixth- or seventh-grade attainment. A considerable number will have reading ability which falls at or above the norm for grade 9, or even higher. If we are to provide a curriculum that encourages every pupil to reach his maximum growth, we must help many less able pupils to acquire basic skills in reading, and we must also seek to give stimulating opportunities and encouragement to the more capable pupils.

2. The presence of very poor readers in the typical junior high school jeopardizes effective learning in every area of the curriculum where reading ability is essential to success. Many school administrators cite reading retardation as the greatest block to successful instruction in the secondary school. Moreover, there are some special reading skills or habits required at the junior and senior high school levels which must be emphasized or developed as they are needed.

During the past few years, the need for instruction in "critical reading" has received increased recognition. Several studies have shown that many pupils in our schools are lacking in the ability to read critically and discriminatingly. For example, one investigator found that groups of elementary school pupils made satisfactory scores on standard tests; yet these pupils were unable to differentiate relevant from irrelevant facts in passages of material which they seemed to comprehend (4). Many children, it appears, can tell what the book says; but they cannot judge either the importance or pertinence of an idea or fact. Significant also are recent studies which show that some high school pupils are unable to distinguish between conflicting conclusions presented in treatments of social issues.

3. Poor reading in junior high school can be greatly improved. Remedial and corrective programs have proved very successful at this level. So, too, have developmental programs.

4. Many rapid-learning pupils also need guidance in their reading and some need to develop more efficient habits. A developmental program may provide this help.

5. A developmental program aims to help students become independent in using various sources for reading. This skill is one of the crucial needs of junior high school students.

6. As noted above, good reading can help pupils to satisfy their developmental needs and to improve their general well-being and personal adjustment.

Developmental Needs and Reading.—The Forty-Seventh Yearbook of the National Society for the Study of Education, Part II, points out that a developmental reading program should emphasize:

(a) the basic skills of reading required of all students, (b) skill in reading and studying different types of subject matter, (c) reading experience to help the student understand himself better and to satisfy with increasing success his personal needs, (d) reading experience to assist him in becoming a more effective citizen in and out of school, and (e) experience that will result in a more enjoyable and profitable pattern of leisure reading (5).

At the Northwestern University Clinic, the professional personnel believe that all children and young people referred as problems to the Psycho-Educational Clinic may be best understood and helped by studying their behavior in relationship to basic human needs. This approach is proving effective regardless of whether the referral is because of reading difficulty, personality maladjustment, or some other problem. After a child has been carefully tested, reading experiences are frequently recommended in accord with "developmental needs" as differentiated from basic human needs. These needs resemble the "developmental tasks" set forth by Robert J. Havighurst and others. According to Havighurst, "a 'developmental task' arises at or about

a certain period in the life of an individual, successful attainment of which leads to his happiness and to success with later tasks, while failure leads to unhappiness in the individual, disapproval by society, and difficulty with later tasks" (6).

Given below are illustrations of "developmental needs" which have been used in guiding the reading of pupils referred to the Northwestern University Psycho-Educational Clinic:

1. developing competency in physical skills or recreational pursuits
2. understanding oneself and developing an adequate, satisfying ideal of self
3. understanding one's social environment and adjusting to one's peers
4. understanding one's place in a family group, and achieving independence of adults
5. making desirable adjustments determined by the role of sex
6. achieving an understanding of vocations and their demands
7. understanding the basic premises of our society and recognizing one's responsibility for successful participation in democratic life
8. developing an appreciation of scientific discovery and of life in our present technological world.

Materials To Satisfy Interests and Needs.—To direct successfully a developmental program, the teacher must become acquainted with books—old and new—as well as with reliable sources for obtaining additional reading materials. A broad reading program geared to the individual recognizes a wide variety of reading purposes and utilizes many types of reading matter: fiction, biography, drama, essays, poetry, informative prose, and so forth. Moreover, this approach necessitates the use of various kinds of printed matter, including books, magazines, and newspapers. Some books are well known by teachers; however, many excellent books of recent date are not familiar to them. Recent titles may be chosen from selected lists such as *Reading Ladders for Human Relations*, published by the American Council on Education, and *Gateways to Readable Books*, published by H. W. Wilson Company. "Integrating Books and Reading with Adolescent Tasks" (7) and "Developmental Values through Library Books" (8) are also valuable sources of book titles for the teacher of adolescents. *The Combined Book Exhibit* (9) is an excellent annual list of recent books to satisfy pupils' needs and interests. The most widely used annotated book list for junior high school pupils is *Your Reading*, published by the National Council of Teachers of English. *A Basic Book Collection for Junior High Schools*, compiled by the American Library Association and other education groups is another valuable source. An annotated bibliography of 24 book lists is included in "Aids for Knowing Books for Teen-Agers,"

Circular No. 450, Office of Education, Department of Health, Education, and Welfare.

Basic Reading Skills.—Certain reading habits and skills need particular attention at the junior high school level. By the time the pupil has reached the sixth grade he has often attained a fairly rapid rate of reading and a high degree of comprehension. Also, his ability to read orally may be quite adequate to serve his present needs. The task then becomes one of adjusting his rate for various types of reading and of refining his comprehension skills to meet a variety of new demands. Abilities and skills that often require further refinement or development include:

- I. Developing Comprehension
 - A. Following directions and finding information
 - B. Finding answers to personal and social problems
 - C. Reading a story for various purposes
 - D. Understanding words and increasing one's personal vocabulary
- II. Reading To Remember
 - A. Remembering important ideas
 - B. Remembering significant details
- III. Associating Ideas and Materials
 - A. Finding proof
 - B. Finding information relevant to particular problems
 - C. Examining basic assumptions
 - D. Studying the adequacy of presentations
- IV. Organizing Ideas and Materials
 - A. Arranging events in sequence and making outlines
 - B. Summarizing
- V. Increasing Speed of Silent Reading
- VI. Improving Oral Reading (10)
- VII. Reading in the Content Field, With Wide Application of Reading Skills

Some Skills of Importance.—Space precludes detailed treatment of all the above-cited reading skills; therefore, we shall consider only a few important skills. For example, reading to obtain material or information relevant to a particular problem is a skill which has wide application at this time. Summarizing, too, is another frequently used technique. Both abilities should be emphasized. Practice in summarizing provides an excellent means of helping some children to improve their general comprehension of reading materials by leading them to grasp and organize meanings.

Noting details is another skill in which some children, poor readers especially, require much practice. The need for development of this skill is often found among high school students. As the child approaches maturity in the development of reading skills, he should be encouraged to read *critically*. He should be led to inquire: Do

the materials afford an adequate basis for the conclusions reached? Are the basic assumptions upon which the author has proceeded justified?

Another need that pervades reading programs at all levels is the cultivation of general and specialized vocabularies. The current interest of teachers in the science of semantics has resulted in a renewed emphasis on vocabulary building and has focused attention upon the way *context* affects meaning.

One of the most difficult tasks confronting teachers is the development of a clear understanding of conceptual words—words that have no direct objects to which they may be referred. A soundly conceived reading program makes provision for the mastery of conceptual terms by offering students an opportunity to discover their meaning through investigation, discussion, and critical study.

To improve their silent reading vocabulary, some students should review principles of phonetic and structural analysis which will help them recognize new and difficult words.

Other Ways To Build Vocabulary.—There are, of course, various ways in addition to phonetic and structural analysis to build a meaningful vocabulary. Following are some suggestions:

1. We can help pupils to derive the meaning of new or unfamiliar words through attention to context. We can direct them to examine known words around new or unfamiliar words and to attempt to obtain the meaning of the new words from their relationship to words already known. Various exercises can be devised for this purpose. For example, exercises may bring out the way the words around *case* determine its meaning as in: a *case* of ginger ale, a *case* of illness, a *case* of poor judgment, a *case* in court, and the subject of the sentence is in the nominative *case*.
2. We can extend the first-hand experience of pupils. The term *jet-propelled*, for example, has a definite meaning for a pupil who has seen a jet plane take off. The word *smooth* has meaning also for a child who has felt the texture of silk.
3. We can motivate extensive reading of challenging literature. Wide reading broadens experience and thus provides the basis for meaningful vocabulary development.
4. Pupils should be led to enlarge their special as well as their general vocabularies. They can be encouraged to look for new words in their general reading and to keep a list of them in a section of a notebook entitled, *My General Vocabulary*. Another section of the notebook might be labeled *My Special Vocabulary*, and new words might be entered here under headings such as *Science, Geography, Music*, etc. In similar fashion, vocabularies can be kept for hobbies, sports, and other interests.

5. Pupils should be encouraged to use new words in their conversations, discussions, and writing.

6. Pupils can be taught to derive the meanings of new words by reference to known words. Application of the principles of phonic and structural analysis will aid also. Interesting examples should be given of the way suffixes or prefixes may be added to extend vocabulary.

7. Varied meanings of conceptual terms such as *honesty*, *democracy*, and *cooperation* can be taught in terms of pupils' experience. And we can illustrate how the meanings of these words may be clarified by wide reading, by discussion, and by investigation.

8. We can stress some significant values in wide use of the dictionary. We can illustrate how helpful a dictionary is in finding synonyms or in studying word roots.

Improving Rate of Reading.—The good reader cultivates different techniques as they are needed. The poor reader, on the other hand, is often unable to make such adjustments readily. Reading rate does not depend upon a single capacity; instead, it is an aggregate of abilities which one employs selectively in reading different types of material. Consequently, a desirable program of reading improvement must provide opportunities for increased speed in reading various types of material. Important also is the development of the ability to decide upon and to use effectively the most appropriate rates with the different presentations being read. Finally, consideration must be given to the importance of interest, difficulty of material, and familiarity with the concepts presented as factors influencing both rate and comprehension. In fact, rate of reading has little value *per se*.

Improving Oral Reading.—Pupils who read as if they were practicing the pronunciation of each word should have opportunities to improve basic skills in oral reading. In addition to practice in pronunciation and enunciation, they will need to learn to read by phrases or thought units. Exercises for these pupils should include practice in phrasing—reading word groups rather than single words; attention to punctuation; and experience in varying tone and pitch to fit the author's meaning. As they improve, they should be encouraged to read and to present stories to their classmates.

In diagnosing the needs of these pupils, the classroom teacher may employ the *Gilmore Oral Reading Test* and then have the pupil turn to the exercises in reading prose, poetry, and other types of materials that are available.

In summary, the chief requirements for effective reading programs are these: clear objectives, careful diagnosis of each student's needs, a variety of books and reading materials, high motivation, and sufficient time to enable the student to develop reading skills in accord with his most pressing needs.

Of course diagnosis, guidance, and appraisal are closely related phases of reading instruction. Only when the teacher knows rather thoroughly each pupil's beginning status can progress be estimated accurately. Such information may be supplemented from time to time by data obtained in the classroom, on the playground, and elsewhere. Periodically—perhaps once a month or bi-monthly—teachers may examine and compare test results and other entries. In this way, evaluation contributes important insights concerning pupils' changing needs. Thus the process continues: diagnosis, guidance, appraisal—and further diagnosis, further guidance, further appraisal.

In these ways the teacher can estimate the extent to which the reading program is actually affecting pupils' lives. When such an approach is widely followed, youth will come to enjoy the act of reading as well as the results. Accordingly, more efficient reading will occur and happier, better-adjusted boys and girls will make up our junior high school population.

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Reading Experiences To Help Adolescents in Their Search for the "I"

By

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“WHY should I spend time reading?” This is a question which reverberates across the land among junior high school students—and indeed among some senior high school and college students. What has been our answer? Has the question been met with a bristling of academic fur? With stentorian exhortation? Or has it led to a thoughtful thinking through of the kinds of reading experiences which we should structure for these active junior high-schoolers so that the rewards of reading will become cumulative and self-evident? After all, the solitary activity which is the result of individual reading interest and appreciation is neither particularly in harmony with some aims of education which stress adjustment and social prestige, nor is it inherently respectable in the gregarious culture of the early adolescent.

This fundamentally solitary activity, we know, is a form of experiencing which takes place in a context and which involves certain motives, purposes, and materials. We assume that attitudes are shaped and altered as a result of this experience and that “appreciation” (whatever the term may mean to the person using it) is furthered—though this entire area is one of speculation in which science and superstition, art and ethics, esthetics and indoctrination are confused in a weird phantasmagoria. We need much research on what really happens in the interaction of student and printed page.

Therefore, I am willing to risk at this point an assumption which furnishes a rationale for this essay: If “desired” interests, those that find their well-springs in the nature of early adolescence, are fostered, then desirable attitudes, at least from the point of view of adults, and

"appreciation," in the sense of a heightened emotional experience in reading, will follow, or at least have the best chance of following.

These "well-springs" of reading interest reside in every youngster, though in some they may lie far below the surface, like the rich oil deposits beneath seemingly barren acres. In our guiding of reading, we have succumbed sometimes to the lure of an easy, surface course of action. For example, we know that junior high school pupils like horse stories, so we dig up all the horse stories we can find, exhausting even the list of Walter Farley tales! Or for the boys we add more and more stories of forest rangers, and for the girls, more and more adventures of nurses and airline hostesses. Of course, this is of some importance, but it is only part of the task; doing it well may guarantee present satisfaction, but may profit nothing for the future. The real job is to *direct* and channel reading interests, and to do this we need to get "deep down beneath"¹ where adolescents—and children and adults—really live to discover the well-springs from which interests derive and to select for emphasis from the cornucopia of ephemeral interests those which can provide important links with a mature esthetic experience.

Because of recent curriculum trends at the junior high school level, we have been inclined to integrate literature with other things, and the common charge that literature has become "a handmaiden" to the social studies is true in some schools. As a guiding principle to avoid this pitfall, I suggest that we gear our literature program, and our general guidance of reading interests, to the search for the "I"; for the power of literature to lead one to self-identity, the discovery of one's "totem," has put literature at the core of a liberal education since the time of the ancients. As Sidney Hook puts it, "The opposite of a liberal education . . . is a literal education. A literal education is one which equips a person to read formulas and equations, straight-forward prose, doggerel verse and advertising signs. It does not equip one to read the language of metaphor, of paradox, of indirect analogy, of serious fancy in which the emotions and passions, and half-believed ideas of human beings express themselves."

But what are the well-springs of interest which can provide guidelines at the junior high school level? First among them is the need for esthetic experience with language. From their earliest awakenings there is among children a natural zest for the "English speech and the English singing." Children gabble for the sake of gabbling, and for most of them their first contact with poetry, the nursery rhymes, brings delight. But this enchantment with the esthetic possibilities of language wanes steadily until, in adolescence, poetry is likely to be met with groans, especially among the boys.

¹Bibliographical references are listed on page 67 at the end of this article.

This breaking of an important chain of esthetic experience is chargeable partly to the nature of human growth, for increasing maturity submerges the emotions further and further below the surface, and of course adolescence is a great no man's land of inhibition. Yet it is due also to our teaching procedures and to our selection of materials. My own experiences as a junior high school pupil furnishes a pertinent illustration. Along with thirty peers in an eighth-grade class, I spent three weary weeks following the tribulations of Evangeline through the many lines of Longfellow's sonorous verse. We decided that a woman who would spend her life chasing a man around the North American continent was pretty stupid, and that furthermore, if this was experience with poetry and great literature, we chose to remain among the pedestrian many rather than the ethereal few.

How to strengthen the continuum of poetic experience at the junior high school level? First, we can have fun with poetry. The humorous verse of Nash, Guiterman, Armour, McGinley, Daly, and others furnishes a good beginning. It is important to stress narrative rather than lyric poetry, though the level may have to be "The Cremation of Sam McGee" or "Casey at the Bat." Oral reading and choral reading of selections like "Boots," "The Listeners," and "The Highwayman" usually will be greeted with enthusiasm.

Then we need to make evident the variety and virility of poetry, the "synthesis of hyacinths and biscuits" as Carl Sandburg defined it. Certainly in the junior high school effusive romantic poetry of love and nature should be avoided generally, and a great deal of modern poetry dealing with brickyards, highways, skyscrapers, airplane flights, and even—in Fred Lape's fine "From This the Strength"—with the dumping of garbage, should be introduced. Patriotic poems are especially popular with junior high school students. A collection such as *Stories in Verse*, edited by Max Hohn (Odyssey Press) will be helpful. It is vital that emoting be done through, rather than about, poetry. If, in the junior high, building upon the basic human urge to exploit the music of language, we can implant the idea that poetry is not effete and feminine, we shall have set the stage for heightened moments a few years further on.

Then there is the great well-spring from which arises the need to follow general interests, through reading, far beyond the possibilities of direct experience. We are all aware of the interest of the junior high boy (and occasionally the girl) in stories of sports action. In this biceps-flexing period, most boys are confidently planning to pitch for the Yankees or play halfback for State. The junior high school boy or girl is addicted to hero worship of the man of action, and Superman, Batman, and Roy Rogers represent, to the pre-adolescent or early ado-



Courtesy, Moshulu Parkway Junior High School, New York City.

Their teacher has matched books with individual interests—and these students enjoy reading.

lescent, a wish fulfillment which a bit later mellows into identification with Mickey Mantle, Floyd Patterson, or some other real life hero. Thus the stories of C. Paul Jackson and Duane Decker can lead into biographies of men of action—Garst's *Jim Bridger*, Daugherty's *Of Courage Undaunted*, Nolan's *The Story of Clara Barton*, Trease's *Sir Walter Raleigh*, Waugh's *Simon Bolivar*—or ultimately to non-fiction of more mature arenas of adventure: the mountain climbing of *Annapurna*, the sea adventure of *Kon-Tiki*, the deep sea exploration of Jean Cousteau and Phillippe Diole, who illustrate man's age-old obligation to live dangerously, an obligation which reduces to nothing the distance between King Arthur's knights and the hot-rodders who sit in our high school classes.

And this dramatic age of mechanical advance and speed and the conquering of distance opens new possibilities in answering the question, "Why read?" Not only is there science fiction but there is the entire area of non-fiction dealing with man's efforts to reduce the limits of his universe. Let us agree immediately, too, that it is better to include superior modern fiction and non-fiction than to insist upon mediocre, but properly venerable, fiction. Scott's *Ivanhoe*, for example, which

has been visited upon generations of ninth-graders, was once breathtaking but now represents a pallid level of excitement to the ninth-grader who has been exposed to the space fiction of a Bradbury or Heinlein.

For the junior high-schooler is completely audacious in his beliefs. His fascination with the bizarre is the stepping stone from child fantasy to the eternal adult awe for the unknown and occult. The slimy, crypt-dwelling monster of the comic book, which has aroused so much adult censure, is simply the creature of this intermediate stage of development, and is presented at a higher level of artistry by Edgar Allan Poe, the favorite story teller of the junior high school student. The channel of interest can lead from "The Creature of the Black Lagoon" to Coleridge's "Christabel" and Stevenson's *Dr. Jekyll and Mr. Hyde*. But the interest demands nourishing in reading, else it will be lost to television or the motion picture, which seldom, if ever, can reach the level of "Christabel."

In his zest for the action-packed and the bizarre, the junior high school student is not only plunging into life, he is escaping from it, as we must all escape occasionally from the confines of the moment, physical and spiritual. The need to "slip the surly bonds of earth" is another of the well-springs of reading interest. Though there are many avenues to escape in reading, one, popular with junior high school pupils, seems especially important; this lies in books of adventure in the wilderness, whether of forest, sea, jungle, the far North, or the old West. All of these locales represent freedom from the complexity of social machinery—men survive here by strength and wit. And in these locales the young reader can try himself out vicariously as he must inevitably try himself out in actuality; and in actuality, he must meet his ultimate test alone. Thus reading supplies a proving ground in adolescence just as surely as did the backyard tent a few years earlier. And furthermore, this interest sweeps the pupil into the great tradition of Romanticism in literature in which, frequently, heroes—Beowulf, the protagonists of Conrad, Santiago in Hemingway's *The Old Man and the Sea*, for example—meet their tests alone and play out their roles against the background of an inscrutable, and sometimes hostile, nature.

This inclination of the junior high school pupil reflects, too, a final, probably the most significant, well-spring of interest: the inchoate aspiration to come to terms with life. It is in connection with this that reading has its greatest impact in the search for the "I." A story may help to ease what James Street called "just the damn hurt of youth, which I contend is not a happy time, but a father terrifying time of doubts" (2). Fundamentally, perhaps, growing up involves mainly a developing understanding of human nature. Certain it is

that a principal touchstone of maturity is the awareness of the complexity of human nature. Characters in good literature, whether real people in non-fiction or people artistically created in fiction, exemplify the complexity of human motivation. The mysteries of human personality receive exploration in literature from the child's first exposure to it. The characters of the nursery rhymes, for the most part, are people of virtue as well as fault. And the story of Ferdinand the Bull represents a subtle commentary on human nature of the type which superior junior high school students can experience in Kenneth Grahame's near-classic *The Wind in the Willows*. The struggle to overcome or sublimate one's fear extends from Armstrong Sperry's *All It Takes Is Courage* to the adult *Red Badge of Courage*.

If we are really concerned about attitudes, and the role of reading in shaping them, it is at this point that our guidance of reading takes on its most serious dimension. For the great popular level of vicarious experience—represented by comic books, the pulps and slicks, and the great majority of radio, TV, and motion picture fare—panders to immaturity and presents a reconstruction of human experience that is half-true, in which certain assumptions are operative: (1) Life is an exciting *physical* adventure or should be. (2) People are either good or bad; there are no intermediate degrees. Often one can tell by physical appearance alone. Heroes tend to be clean-cut and well-shaven, for example, while shady characters are prone to let their whiskers grow for several days. And in the Dick Tracy strip, for instance, villains are usually marked by strange and repulsive physical characteristics. (3) Money and romantic love lie at the heart of life's problems. (4) The end justifies the means. It matters not that Superman kills a few people and destroys property so long as his objective is, on the surface, noble. (5) People in authority—senators, mayors, policemen, professors, corporation presidents, and often parents—are likely to be stupid, pompous, or sadistic, and are inevitably humiliated in the end. Of course, this rebellion against authority, whether of the Bugs Bunny or Li'l Abner variety, is highly appealing to the adolescent who is so much under the thumb of adult authority, but who is beginning to chafe as a result.

Our reading guidance, then, must provide a ladder out of the vast emotional and esthetic plateau of most popular entertainment. Junior high school students may mount the lower rungs as their literature study centers frequently on human values. "What do people do with their lives?" may furnish a theme for the reading and study of biography, as students consider Manton's *Albert Schweitzer*, Yates' *Amos Fortune, Free Man*, Judson's *City Neighbor*, the story of Jane Addams, Jeanette Eaton's biography of Louis Armstrong, *Trumpeter's Tale*—

all moving dramatizations of what different people have made of life under different conditions.

No doubt another of the touchstones of increasing maturity is an awareness of the beauty and significance in the everyday, the humdrum. Overwhelmingly, the mass media level of vicarious experience stresses the melodramatic, exotic aspects of living in which few of us can share directly. For our junior high school students, prose and poetry which treat of everyday sights and sounds and people, and through which everyday experience can be evaluated, is the leaven in all this. Students might read in common James Street's *Goodbye, My Lady*, for example, which at their level does what all literature can do—illuminate beauty. And the junior high-schooler is more likely to associate beauty with a dog and the natural sounds of the swamp than with, say, a field of daffodils; but the beauty of the daffodils or a Grecian urn or a stand of birch trees or a brickyard by moonlight may become real later, through the alchemy of experience and verbal symbol, as the pupil develops that power of the "inward eye which is the bliss of solitude."

Yet if all this is to come to pass, there are certain realizations which must govern the routine of our days. First, all teachers have a stake in the development of reading interests. Biography and fiction can put flesh on the skeletons of history and geography. Historical fiction can bring the events of our past into moving close-ups and help pupils to live through, as well as witness, the stirring saga of our national story, thus aiding and deepening understanding of concepts of time and place. Certainly the science teacher has at his disposal a wealth of material, fiction and non-fiction, of man's attempts to fathom an inscrutable universe, with which to enrich his subject. Is it hopelessly visionary to suggest that the coach and teacher of physical education may recommend books in the area of sports and recreation, or that the teacher of homemaking might make use of a variety of materials on dress and grooming, home decoration, and family living?

For a wide variety of books, magazines, pamphlets, recordings, filmstrips, motion pictures, and TV kinescopes are needed, and are available. Each school needs a coordinated materials program, for the day of the single text or reader is as obsolescent as the derby hat. The phenomenon of paperbound books has been a great boon, especially to poverty-stricken schools. The young people's divisions of public libraries, in close cooperation with the communities' teachers, have made a splendid contribution to the advance of literacy among our youth. This is a movement which needs all the encouragement we can give.

Finally, I think it important that we give unequivocal recognition at the junior high school level to the literature "class," presided over by teachers who possess a keen knowledge of child and adolescent de-

velopment and of literature. For a two-pronged attack is needed: first, a broad program of guidance in reading, centered on a "ladder" approach to the natural well-springs in adolescents of reading interest; second, actual study of literature, in which an expert structures group experiences in reading and leads students in consideration of matters most deserving of stress—through a program which is organized psychologically, to illuminate human experience, not technically nor historically.

For as we nurture really *basic* reading interests—which without us may not have their fruition in reading—we lead to desirable attitudes and to "appreciation," which, in my opinion, is not one outcome of reading but a distillation of all outcomes. For true appreciation leads to a developing synthesis of human experience, putting the youngster—or adult—as close as he can come during mortality to self-identity, to answering the questions "What am I?" and "What am I for?" This is what guiding reading growth is really about.

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IPART 3

Part III. Responsibilities for Reading Instruction

What Are the Responsibilities of Language Arts and Core Teachers for Teaching Reading?

By

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TODAY, general agreement seems to exist that no matter how well pupils have been instructed in the elementary schools, they are not equipped for the more mature reading and study skills required at the junior high school level. Thus, the responsibility for promoting the further development of effective skills and abilities of all pupils must be accepted by language arts and core teachers in junior high schools.

Responsibilities of Language Arts Teachers

Coordinating reading with other aids to language development means that the teacher is attempting to promote growth not only in reading but also in every means of expressing and receiving ideas. Reading, listening, observing, speaking, and writing are interrelated and mutually dependent. Implicit in this principle is the idea that reading is not an isolated kind of activity separate from other language or communication skills. Developing ability in one area reinforces the others. Fundamental to success in this integrated pattern of teaching is systematic planning for each area if the program is to be well balanced as well as coordinated. This kind of planning prevents undue stress on any one particular phase or skill.

Just how do language arts programs actually operate in practice? Administrators set aside five or six periods weekly (in some instances more time) for language arts or English work. The specific breakdown in periods is often left to the teacher and supervisor. They decide what proportionate amount of time is to be allocated for oral and written expression, spelling, correct usage or grammar, reading, and

literature. In such an arrangement reading seldom receives its just share of attention in all classrooms. The assignment is a heavy one in an already heavy junior high school schedule. Each area must be cared for, and the time element is an obstacle.

Junior high school pupils are getting ready for more mature reading. It has been estimated that 80 to 90 percent of the study activities in the average secondary school require skill in reading for successful achievement. A look at the curriculum confirms this statistic. Pupils also require a wider variety of reference sources than they did in the intermediate grades. Therefore, they must have the knowledge of how to use them. In the junior high school, as well as in earlier and later years, reading is a functional tool to be used and applied in everyday classroom living.

Thus, the question arises: Can the development of all the specific reading abilities and skills be cared for in the total natural learning situations within the language arts areas, or will reading be submerged in such a setting?

In a well-balanced program, all the elements—oral, silent, informational, and independent reading—are present at each and every grade level. Instruction is concerned with the development of:

- (1) reading techniques and skills
- (2) vocabulary and background concepts
- (3) differentiated attack on reading materials
- (4) independence in personal reading, and
- (5) wider appreciations and interests in literary selections.

It is generally recognized that a successful reading program serves the dominant interests and needs of adolescents, provides sequential experiences, and is made functional through carefully planned instruction in all classes. A schoolwide program enlists the cooperation of the entire staff and aims to reach the superior, the average, and the slow. It provides systematic developmental instruction for every pupil; and it offers remedial assistance for the more seriously retarded, possibly on an individual basis or in smaller groups apart from the regular classroom situation.

The responsibility of the teacher in the language arts program is threefold: one part of the reading experiences of her pupils should be developmental or basal, in which the techniques of reading are taught; a second part should be a study-type program in which the skills learned are used in such activities as reading newspapers, magazines, a science experiment, a social studies report; and a third part should be a recreational-personal program in which reading interests are extended and deepened. Even though pupils acquire a particular skill, such as reading for details, finding the main idea and supporting details, visualizing through words, drawing conclusions, skimming for

data, or reading critically, they need guidance and practice in applying the skill. Also, pupils need to receive the encouragement which comes from the successful attainment of goals which are significant to them.

Creating a love for literature is a basic part of every good program in the language arts. To help pupils form the habit of turning to books as a source of enjoyment, to help them become sensitive to the elements that give quality to poetry and prose, and to deepen their understanding of human behavior, ideals and spiritual values through literature are important objectives of language arts teaching.

Valuable as free, personal reading is, it alone cannot guarantee that all children will acquire the riches of their literary heritage. Pupils do not acquire competency in interpreting situations and story settings by just being exposed to many books. Nothing can take the place of a guided literature program planned by the teacher.

Responsibilities of Core Teachers for Teaching Reading

One of the major curricular experiments over the last 20 years has been the combination of subject areas known as core courses in junior and senior high schools. Probably no term in current educational literature has so many different meanings as core curriculum. Junior high schools following a core program usually include or combine English language arts and social studies in their program; other subject areas—science, mathematics, health education—are sometimes included in a combined course. Because language arts is so intrinsically a part of all knowledge and all living, it is one of the areas which is most often found in such curricular arrangements.

Some of the distinguishing features of core classes have implications for the teaching of reading. Core classes make use of a larger block of time than the conventional 45-minute period. This procedure gives an opportunity for teachers to become acquainted with pupils and to provide adequate guidance. The core curriculum places emphasis on group problem solving or teacher-pupil planning in contrast to predetermined goals and procedures. The curriculum is sometimes characterized by a lack of adherence to subject-matter patterns or a single textbook. The question arises: In what ways do these features promote growth in reading?

The larger block of time and meeting of fewer pupils should afford the opportunity for work with small groups or individuals to discover difficulties and to provide needed help and guidance. It should also provide for time to plan enrichment activities and extensive reading for the more able pupils. Freedom from restrictions of a single

text should encourage the use of different materials on varying levels of difficulty. Core classes in which problems for study are derived from group needs and interests of pupils themselves should aid reading growth immeasurably by prompting the urge to look up information and find the answers about things.

These conditions are potential sources of growth in reading ability in the core curriculum; but in many reported instances, the chief emphasis is on problem-solving. Under these conditions, reading, especially of interesting literature, too often assumes a subordinate role. The responsibility rests with the core teacher to analyze the demands which are made upon reading and the contributions which reading can make in terms of the goals sought.

In theory, the integration of language arts and social studies, or other areas, increases motivation and makes more likely the interchange of skills and knowledges—perhaps of attitudes also; but the core program seldom works that way unless teachers plan in terms of the abilities and interests of the group. Because of the intense preoccupation with problem-solving in the core, there is a tendency to neglect attention to reading skills—which are really needed to deal adequately with printed content.

During the evaluation period core pupils often realize that their failure to achieve certain goals was caused by lack of reading skill or by an inadequate development of a skill. The program of reading in the core should provide ways in which the pupils can recognize their own reading competencies or their reading deficiencies and inadequacies. The very flexibility of the core curriculum forces teachers to consider over-all planning that points up the unique role that reading can play through guided practice in identifying, selecting, and solving given problems.

An effective way of establishing a bond between reading and the content area consists of: (1) identifying the reading skills pertinent to the content area; (2) diagnosing the student's ability in applying the skills; (3) setting up procedures for instruction in reading with the teaching of content.

Successful achievement in reading social studies material depends to a large extent upon the pupil's ability to read with good comprehension and insight. An understanding of historical, civic, and economic realities must be gained through reading, since the range of direct experience is limited in any class. In studying social studies materials, pupils are required: (1) to cope with new vocabulary, connotations, and new concepts; (2) to read maps, graphs, and charts; (3) to develop a sense of time and chronology; and (4) to make generalizations.

Though there is an overlapping of skills in content areas—science, social studies, mathematics—each has its own specialized vocabulary and special skills determined by the purposes required for each area. Time taken with groups to determine how different pupils attack an assignment, how they read the material, the purposes they use, and the techniques they apply pays good dividends.

Some general procedures for the improvement of reading in content areas have been listed, as follows, by Ruth Strang, Constance McCullough, and Arthur Traxler,¹ (1):

1. Provide a rich background of experience for the material to be read. This background of meaning and motivation may be supplied by activities in which students are interested—laboratory work, demonstrations, pictures, film slides, motion pictures, excursions, and talks by members of the community who have traveled or made collections illustrating the topic. . . .
2. Encourage wide reading of easy, popular material in the field, by leaving magazines, pamphlets, and books where students can read them in their spare time. . . .
3. Ask for volunteers to look up additional information needed to answer the questions raised by the class.
4. Give practice and instruction in reading different kinds of material for different purposes—a news article, a literary description, a technical article—all the same length. The students read all three articles and answer appropriate questions on each. Then they discuss the time required and the method used for reading each kind of selection. This discussion brings out clearly the need for slower reading of technical material, for precise comprehension of each scientific concept and formula, and for deriving sound generalizations and conclusions. . . .
5. Build a vocabulary of key words in the field. Certain words present difficulty because of shifts of meaning or specialized meaning. . . .
6. Use as practice exercises passages from the books students are expected to read. . . . The first of these exercises will show the students' need for instruction in getting the author's pattern of thought, selecting the main ideas, remembering and relating important details accurately, drawing inferences, making generalizations, gaining appreciation, and understanding key words. The students whose comprehension is high may be asked to describe their method of reading the passage. . . .
7. Encourage students to analyze their own reading difficulties in the subject and to talk with the teacher about the kind of practice they need. If the whole class or a group within the class needs to improve particular reading skills, the teacher may use ten or fifteen minutes of the class period for this practice and instruction. In a work or study period the best readers may serve as tutors to individuals or to small groups. A few minutes at the end of the period may well be spent in discussing the best method of reading the assignment for the next day. . . .

Teachers often ask this question about teaching literature in the core: Is the core curriculum likely to give pupils adequate experiences

¹ Bibliographical references are listed on page 76 at the end of this article.

with literature to develop appreciation of good poetry and fiction and the habit of reading for recreation? In core work, teachers should plan for the teaching of first-rate literature, keeping in mind the range of reading abilities of the group. With the help of the librarian, selections should be provided that have real literary value and that help to explore the core problem. Selecting books having a theme which enriches the core problem is only one aspect of the program of related literature. Plays, poetry, and short stories which are entertaining can also be used to advantage. To limit the literature program to selections related to the core problem is too narrow and restricting to lead to the attainment of cultural goals of value to the well-rounded citizen.

Teachers have the responsibility for seeing that pupils are not denied their literary birthright in a land with free public education for all youth. The literature of adventure, sheer amusement, youthful achievement, and personal idealism are essential to the development of pupils' personalities. Teachers and librarians are partners in looking for evidence that literature has been an influence in helping pupils enjoy broad and deep experiences, in solving personal problems of adolescence that are often common rather than unique, and in developing a growing awareness and appreciation of what is signified by the term "American Heritage."

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The Problem of Reading Instruction in Mathematics

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WHILE on an automobile tour not long ago, I went into a stationery store one evening to do some shopping. The only persons in the store were three boys, in the rear, doing, or attempting to do their homework in mathematics. One of the boys, evidently the son of the proprietor, came forward with a polite "Sir, may I help you?" After completing my purchases, I said, "What are you boys doing?" One replied, "Our math problems, Sir. We're stuck. Could you help us?"

I expressed my interest and accompanied them to the rear. One of the boys handed me the text (of which I was an author) and said, "We're having trouble with problem four."

"Will you read it aloud to me?" I asked. The boy pronounced the words unusually well, but with such obvious lack of comprehension of the nature of the problem that I commented: "Your reading doesn't help me to understand the problem." I pointed to another boy. "Will you read it?" His reading revealed no better interpretation than did that of the first boy. The third boy then volunteered to read it aloud. His reading indicated quite clear comprehension of the thought and meaning of the problem, and brought forth from the other boys an "Oh! I see. I get the point."

After treating in a similar manner the other problems in the assignment, the boy on duty remarked: "Sir, may I ask you a question? What is your occupation? I know you aren't a teacher, but I can't figure out what you do."

I replied that I lived on a farm in Pennsylvania and spent a great deal of time thinking about mathematics.

Then I asked, "How could you tell I wasn't a teacher?"

"I knew you weren't a teacher," he answered, "because you didn't tell us anything."

Without revealing any more about myself, I took leave of the trio with the remark, "In Pennsylvania the boys who read well, who interpret the ideas in their problems, have very little trouble with mathematics. Reading isn't just saying words. It's seeing the ideas behind them. Reading is very much like thinking."

Many junior high school boys and girls do have difficulty in reading their textbooks in mathematics. This paper proposes those procedures for teaching reading which the author has found effective with most pupils, excluding only those whose mental, emotional, or physical conditions render them "clinical cases."

Levels of Reading Ability

We know that junior high school pupils in mathematics classes vary greatly in their ability to read the explanations and problems in their textbooks. For some pupils, reading at best consists of mere saying of words, with little or no comprehension. They dislike reading. Obviously they require more of the oral developmental, experiential type of instruction which is currently so effectively employed in many elementary schools.

At the other end of the scale are those pupils who, independently, are able through reading to modify old concepts or to acquire new ones. They are capable of reading to a degree of depth, difficulty, and range greater than that of the average mathematics text. Unless challenged by reading content appropriate to their capacity, they are likely to lose interest in the subject. If effectively challenged, they will be able to become outstanding thinkers. In this group we are most likely to find our future leaders in science and mathematics.

Then there is the large middle group of readers at whose level most of us direct much of our teaching and our writing. In this group we find various kinds of reading disabilities—mental, physical, and emotional. Specialists in reading have made significant contributions to the classroom teacher, looking toward correction and prevention of such disabilities.

The purpose of this paper is to suggest instructional procedures to benefit, in varying degrees, learners at all levels of ability and achievement, both in mathematics and in reading.

Objectives of Mathematics Education

Before considering further the place of reading in our mathematics classrooms, we must have a large measure of agreement concerning the major objectives of mathematics education.

For our purpose here we shall assume, not argue, these major objectives. Stated very briefly, they are (1) learning to reason, to think one's way through a problem situation (quantitative, of course) to find a response that has not previously been learned, and (2) learning to compute and to estimate, once the reasoning has disclosed the operations required to bring forth the wanted results.

But reasoning requires ideas, concepts, meanings. Reasoning is rearranging or relating the ideas in the problem situation so that the "what is wanted" is seen as a consequence of the "what is known." Thus, reasoning presupposes knowledge of the concepts. Hence, we have as an *instrumental objective* the teaching of the fundamental concepts inherent in the number system. (Recently we have been calling these ideas or concepts the *meanings* of mathematics.)

We may say, then, that we are greatly concerned with instruction in the concepts of our field, in order that the learners may be able to "think about," to "reason about" significant problems in their experience.

Experience has taught us that in the initial stages of instruction in each new concept we should rely upon *oral* rather than *written* communication. We *explore; say, hear, discuss, talk about* the problem. We experiment, discover, explain, listen, use illustrations, and develop. We build new meanings and modify old ones, we generalize, and particularize. We introduce new symbols, and new words in context. All the while, the teacher records these new words and symbols on the chalkboard and calls attention to their spelling and formation. The learners use them in sentences and enter them in their "New words" or "New symbols" lists.

These symbols and words, such as *circle, diameter, circumference, ratio* and π (*pi*), illustrate the technical vocabulary of mathematics. They, the technical vocabulary, are unique and indispensable. We are saying that their meanings and inter-relationships are more effectively learned at the outset through oral discussion, experimentation, and informal verbalization than through reading. But there comes a time when it is to the learner's advantage to be able to supplement, if not replace, the oral with the written expression. He must be able to read, to comprehend thought communicated through written sentences. Reading, of course, helps the pupil to establish and clarify concepts which he has acquired through more direct experience.

Making and Reading Mathematical Generalizations

Let us continue our discussion of the concepts of *circle, circumference, diameter, ratio, and pi*. As a result of the informal, develop-

mental, discussion type of teaching, the pupil will have participated in the making of such generalizations as:

1. The circumference of a circle is a little more than three times its diameter.
2. When we divided the length of the circumference of a circle by the length of its diameter, we got a quotient of about 3.
3. We called the "quotient of the circumference divided by the diameter" the *ratio* of the circumference to the diameter. Ratio means quotient.
4. We agreed to call the ratio or quotient π . It's the same for all circles.
5. We also found that the diameter is about one-third of the circumference.

These, and other observations about the concepts of *circumference*, *diameter*, *ratio of circumference to diameter*, and *π* , are pre-requisites for reading. They constitute a kind of mathematical reading readiness. The teacher prepares learners *for reading!*

After this careful preparation, most learners may be expected to be able to read and respond successfully to such written questions and statements as the following (presumably found in the textbook or supplied in other written form):

1. The circumference of a circle is about how many times as long as its diameter?
2. Jack measured the diameter of a circle, and decided that it was 12.2 inches. He wanted to find its circumference. To do so, would he have to measure it? Why not?
3. Is *ratio* a sum, a difference, a product, or a quotient?
4. To find the ratio of circumference to diameter (when both are known) would you divide the diameter by the circumference, or divide the circumference by the diameter?
5. Make a sentence using the words *circumference*, *diameter*, and *π* . What is the subject of your sentence?
6. Complete the sentence: To find the circumference when the diameter is known,
7. Complete the sentence: To find the diameter when the circumference is known,

Problem Analysis Leading to Reading and Solution of Problems

In the circle-circumference-diameter-ratio- π illustration, we have been concerned with learning leading to reading generalizations with comprehension. We shall now consider the analysis of the so-called verbal problem, leading to its reading and solution:

"Find the rate of discount on a six-dollar pair of skates that sold for four dollars." To solve the problem, the learner (the reader) must bring to the problem a galaxy of previous learnings. These include:

1. *Marked price, selling price, discount, and rate of discount.* Without these concepts, there can be no real reading, even though the words may be pronounceable and spellable.
2. Moreover, the reader must know the *relationship* between (a) the concepts of marked price, selling price, and discount, and (b) the rate of discount, discount, and marked price.

Obviously the particular data in the above problem are relatively unimportant in comprehending the problem, and are necessary only for computing the numerical answer.

Thus, as we said previously, before the learner can be expected to read with comprehension the above problem, before he is ready to read it, he must realize that discount means "marked price minus selling price," and that *rate of discount* means "*discount compared with marked price by division.*"

Guidance or help in the reading of the problem is almost, if not wholly, equivalent to guidance in the reasoning required in solving the problem. This may be facilitated by such questions as:

1. What is the problem? (Finding rate of discount.)
2. What do you have to know and do to find rate of discount? (Know discount and marked price; and then divide discount by marked price.)
3. Does the problem tell you the discounts? (No.)
4. What must you know and do to find the discount? (Know marked price and selling price; and then subtract selling price from the marked price.)
5. Does the problem tell you the marked price and the selling price? (Yes, six dollars and four dollars; so the discount is two dollars.)
6. Now that you know the discount and the marked price, what did you say you must do to find the rate of discount? (Divide the discount by the marked price.)

The reader must be in possession of the concepts of marked price, selling price, discount, and rate of discount. He must be prepared to read, i. e., to sense the ideas denoted by the words and phrases of the verbal statement. With this preparation, the reading (getting the thought) is possible.

To emphasize the ideas or concepts in reading a verbal problem, we often have the problem read and paraphrased; naming only the big ideas. Thus, in our rate of discount problem the pupil might paraphrase as follows: I paid so much for an article which regularly sold for so much; I got a discount of so much; I have to find the rate of the discount.

We are insisting that reading in mathematics, whether of generalizations or problems, implies analysis, recognition of ideas and the relationships among them. In a sense, reading is thinking, relating what is wanted to what is given. It should be obvious by now that in the writer's opinion, the ability or inability of the pupil to read mathematics exposition and problems with comprehension and discernment

is determined to a great degree by the clarity, depth, and range of his mathematical concepts. Good readers are those who have the conceptual equipment necessary to recognize the mathematical ideas connoted by mathematical words, phrases, and symbols. Poor readers are those who are deficient in this conceptual equipment. Remedial reading is closely equivalent to relearning or improved learning of the ideas. The pupil whose understandings are relatively immature will of necessity be a relatively poor reader. We improve his reading by clarifying his understandings, by reteaching, by moving him at a slower pace, by providing more experiences with ideas.

Now let us consider what reading difficulties may be encountered in a group of verbal problems. What opportunities for growth in reading may be provided?

1. Meaningless technical words or phrases may appear in one or more of the problems. If so, they, the problems, should be omitted from the assignment. In this case the teacher or textbook will have violated the accepted principle that verbal problems should apply *previously learned concepts*.
2. The non-technical vocabulary may be inappropriate or above the reading level of the class, or some members of the class. In this case the problem should be read aloud by one or more good readers, after which the word or phrase may be modified, or replaced.
3. The sentences may be too long. Here the teacher may have the pupils suggest ways of revising them to make them more readable.
4. The problem may contain insufficient data for its solution. If so, this fact should be recognized by the class, with a resulting agreement as to what action should be taken to supply the missing needed data.
5. A problem may contain irrelevant or unneeded information. In fact, some problems of this type are desirable. Identification of such information makes for purposeful reading.

Characteristics of Mathematical Reading

Reading in mathematics is distinctive in three important respects:

1. The vocabulary of mathematical reading is probably more limited and more exacting than that of any other subject area. Its words and symbols are characterized by a high degree of precision of meaning. Its sentences are succinct. The flow of thought is sequential. Such words and phrases as *since, therefore, consequently, put-together, take-apart, compare, by definition, by assumption*, and the like, call for keen discernment. The learner's reading rate is necessarily slow. There is no such thing as "skimming." Every word, phrase and symbol must be digested. The reader becomes disposed to ask himself, "What does this mean? How are the ideas related? In which direction do I go now? Is the statement always true?" In this reading-thinking process, explanations and problems may need to be read several times for full comprehension.
2. The symbolic or shorthand language of mathematics cannot be read intelligently until the symbols have meaning. This symbolic language can-

have meaning only by skillful association with less symbolic and more meaningful language.

For example, to read with insight such symbolic expressions as $a \div b$, $\frac{a}{b}$, $b\sqrt{a}$, the pupil must have the concepts of partition and comparison division. Interpreted as partition, the verbalization of each algorithm is: "Some number a is to be separated into some number b of equal parts." Interpreted as comparison division, the verbalization of each is: "How many b 's are there in a ?" or " a is what part of b ?"

Effective reading of such expressions as $y = 2x + 3$ presupposes the concepts of *variable*, *equality*, *multiplication*, and *addition*. The expression states that "two numbers are so related that one of them is always 3 more than twice the other."

Thus, as in the reading of word symbols, the reading of mathematical symbols demands of the reader the possession of the concepts and the relationships among them.

3. Reading simultaneously improves and widens language usage and mathematical understanding. Textbooks are written in terse, concise, and correct statements. Pupils must be taught to appreciate those various and equally correct ways in which mathematical thought is expressed. For example:

- (1) The commission at the rate of 5% on sales of \$1600 is (a) 5% of \$1600, or (b) $.05 \times \$1600$, or (c) \$1600 multiplied by .05, or (d) the product of .05 and \$1600, etc.
- (2) The number of yards in a mile (5280 feet) is (a) the quotient of 5280 feet divided by 3 feet, or (b) equal to the number of times 3 feet is contained in 5280 feet, or (c) may be computed by dividing 5280 feet by 3 feet, etc.
- (3) The area of a rectangle 4 feet wide and 6 feet long is (a) 4×6 square feet, or (b) 6×4 square feet, or (c) $4 \times 6 \times 1$ square feet, or (d) the product of its dimensions (in feet), etc.

The stating and reading (with comprehension) of such varied, equivalent, and equally correct ways of thinking and expression, deepen insight. Practice in re-casting in other equivalent language, statements found in the text, is rewarding.

High Level Maturity in Reading

It will be apparent that up to this point we have proceeded upon the assumption that the teacher has played the major role in the instruction. She has employed reading, to be sure, but chiefly as a follow-up, as a continuation, extension and enrichment of the oral, developmental instruction. She has prepared the pupil for reading by making sure that he has the conceptual background prerequisite to the reading. However, the teacher believes that the pupil should become increasingly able to learn through his reading, and become less and less

dependent upon her. Eventually the pupil should become able, through his reading, to sense and clarify the ideas, get new ideas, and see the relationships among them. Through critical study of what he reads, he can become his own teacher. At this mature level, reading will have become the open sesame to mathematical insight.

A colleague of mine ingeniously and effectively promotes this kind of teaching. One of his pupils reads (and reports to the class) textbook A's treatment of a topic, such as Area. Another pupil reads and reports on textbook B's treatment of the same topic, and so on for several other texts. On other topics, other pupils read and report. The teacher's assumption is that pupils *can read*, and that they derive profit and pleasure from the reading and from the sharing and comparing of their learning experiences.

Conclusion

1. In order to be able or to be ready to read, most pupils require an oral, exploratory, experimental, developmental, discussion type of teaching designed to build and enlarge the concepts and generalizations. During this period the essential oral and written vocabulary becomes familiar and meaningful.
2. Following the above procedure, pupils having no special disabilities are able to read with comprehension statements and questions about the topics just developed. Emphasis is upon the recognition of ideas and the relationships among them.
3. After verbal problems have been read they should be paraphrased or restated so that the mathematical ideas appear in bold relief. This facilitates the reasoning leading to their solution, and at the same time aids the poor reader.
4. Mathematical reading is highly specialized. The person best equipped to guide the reader is the mathematics teacher, who conceives of the teaching of reading of mathematical ideas as an integral part of the learning in his field. Mathematics teachers, however, need the guidance of "reading specialists" in the prevention and correction of deep-seated reading disabilities.

The Responsibilities of Science Teachers for Teaching Reading

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TO say, as I do, that the junior high school science teacher has a responsibility for teaching reading, is committing him to a most difficult assignment. It is an assignment for which few science teachers are prepared. They will need help if the job is to get done. They will need help in learning how to determine the nature of difficulties which their pupils are having in: recognizing words; getting the meaning of words, sentences, and paragraphs; using illustrations, cross references, and glossary to add meaning to their reading; interpreting tables, graphs, formulae and equations; locating science information; and the variety of other skills involved in reading. There are techniques for identifying these difficulties as they relate to science materials. There are methods of teaching to overcome them. When these methods are applied, learning in science becomes more effective. In my judgment, it is just as important that a science teacher work for the improvement of his pupils' abilities to read science materials as it is that he advance their understanding of the concepts and methods of science. Actually they are complementary; one helps the other.

It is important to remember, however, that reading is a complex thought process. This is particularly true where reading is used to increase understanding of science concepts and generalizations, to develop scientific attitudes, and to solve problems by the method of science. It is also important to remember that the patterns of thinking that young people use are as different as their faces. For these reasons I doubt that we should attempt to standardize our approach to the special reading problems of youngsters. We should rather approach each with "What is your way? Here are some other ways. Try them for fit."

One of a teacher's prerequisites to assuming responsibility for teaching reading is to recognize the need for it. In most of the junior high schools with which I am acquainted, the science teachers are greatly concerned about the reading disability of a number of their pupils. They deplore the fact that these young people have been "passed" on to them from the elementary school. They are teachers of science and there is all too little time in the busy junior high school schedule for their subject. They resent using any part of it to teach skills that, in their judgment, should have been learned in the elementary school. Their indignation about the situation is evidence that they recognize the important role of reading in learning science.

In their own ways, many science teachers who have a large proportion of poor readers in their classes are trying to do something for them. What they do, however, is sometimes questionable or far from ideal. Some attempt to give reading instruction, and at the same time to cover the science lesson, by having pupils read orally in class from their texts. Some lay aside all reading material, such as textbooks, and teach by a "demonstration-discussion-notebook" method. By this method the teacher explains the science demonstration, performs it, writes pertinent material on the chalkboard, and has the pupils copy it in their notebooks. Some teachers use non-graded text material in an effort to accommodate the pupil whose ability is below the reading level for his class. Science cartoon books and other pictorial material are used by many science teachers whose pupils find their regular text too difficult. Where audio-visual materials are available, others may rely heavily upon these to teach science. In some instances science teachers have written simplified versions of printed materials that are beyond the reading level of their pupils. As will be pointed out later, each of these methods has certain instructional weaknesses.

In these ways science teachers are attempting to teach science to young people who are disabled readers. It is doubtful, however, that very many of these teachers are aware of the variety of factors that contribute to the reading problem. Nor do many of them understand the complexity of the problem and effective ways of dealing with it. An intelligent approach to the pupils' reading in science must be based upon a better understanding of various aspects of reading.

There are factors inherent within science itself that add complicating dimensions to the reading problem. Scientific knowledge is advancing at phenomenal rates on many fronts. Scientists themselves have difficulty keeping up with the literature. Electronic devices are being used to record and classify the knowledge of these advancements so that by "push button" techniques it may later be made available to interested scientists.

With each scientific advance come new concepts and new word symbols to add to the already complex vocabulary of science. In the first chemistry course which many of us took, the atoms involved in chemical reactions were made up of only electrons and protons. But now there are neutrons, positrons, and antiprotons, to mention only a few. There is atomic fission and fusion. Radioactive isotopes and thermonuclear bombs are terms common in both the reading and conversation of the layman, as are the variety of antibiotics and vitamins. There are radio stars, atomic reactors, artificial satellites, electronics, automation, synthetics, electric eyes, Geiger counters, applause meters, TV (black and white and color), space ships, supersonic flight, Mach 1, Mach 2, and megaton bombs. These advances and new terminology complicate reading in science.

We might have found fewer reading problems in the "good old days" of Lucretius when atoms were indestructible bits of matter with hooks on them. The "hook theory" provided simple explanations for such things as the nature of gases, liquids and solids. The vocabulary of science was less specialized in the days of Leeuwenhock. His microorganisms were "little animals" with heads, bellies, tails and legs that wiggled about under his home-made microscope. His "little animals" were uncomplicated by protoplasm, cytoplasm, nucleoplasm, vacuoles, granules, chromosomes and genes.

If we could ignore the recent advances and teach only the science of 50, or even 25, years ago, our reading problem in science would be less of a headache. But junior high school youngsters are living in today's marvelous world with its ray guns and space ships. This world is not strange to them. They accept it. They want to be a part of it, and reading provides the avenue.

In no small way these advances are accountable for some of our science reading problems. We want descriptions of the latest advances in our textbooks because young people are demanding them. We also want the old and more familiar science. We, as teachers, not only feel more at home with it but realize that much of it must be there to develop the elementary concepts of the new. As a result, textbooks get bigger. Writing becomes more generalized. And many science books are reported to be too difficult for many pupils.

We are attempting to cover too much in science. Learning becomes superficial. Pupils read to learn definitions rather than to get meaning and the personal satisfaction that comes from understanding, at their respective levels. They recite the "billboard signs" and "headlines" and we accept it as science learning. By such procedures we not only fail to improve reading ability but actually impair reading skills that are fundamental to critical thinking and to the development of independence in learning.

We must slow down and turn more of our attention to helping young people develop skill in using the learning tools to increase their understanding of science and their ability to solve problems. These tools include all of the communication skills and especially the reading skills.

Effective reading must have a purpose. Science teachers have a unique opportunity to motivate reading by developing purposes for reading. The science teacher can capitalize upon interesting situations to point up challenging problems for some pupils. He can set the stage by planning situations that highlight problems that challenge other pupils. It may be through a planned field trip, a film, or a simple demonstration that a problem is identified and a desire to do something about it is developed. For example, in a study of water transportation, a demonstration of a Cartesian diver generally brings forth the question: "Can I do it?" Once the pupil finds that he can make the diver go down by squeezing the sides of the bottle, his next questions are: "How does it work?"; "Can I make one?" With interest and curiosity aroused in further investigation and learning, he now has a real purpose. One way to learn is to read appropriate material. The competent teacher not only sets the stage, but once the interest is sparked he has suitable materials available for the pupils to read.

In science classes where young people are unable to assume reasonable degrees of independence for their learning through reading, the teacher is tempted to resort to some one or all of those practices earlier described. To tell and demonstrate is the one temptation to which many science teachers yield in such situations. Science can be taught in this way. But the learner becomes entirely dependent upon the teacher. By this method little is done to help him overcome his reading deficiency. If he cannot read, the long term value of the science he learns by listening and watching is questionable.

Another temptation is oral reading. If properly managed, oral reading in science classes has value in teaching some reading skills. The practice is questionable whenever it is used as a mechanical method of improving reading skills or as a substitute for independent reading.

It would seem entirely defensible for a science teacher to yield to the temptation to substitute simplified material for poor readers. If the science text is too difficult, why not give him some well-illustrated, less difficult material. Again, this practice, in and of itself, is not adequate. The problem of helping young people become better readers of science material is a complex one. Its solution is far more difficult than some one of the simple practices described above. The problem and its solution become even more complex when we realize the variability

of individual deficiencies, individual motives for overcoming them, and the ways by which each individual can best be taught.

If science teachers were to study the materials which they require youngsters to read, they would find some interesting and startling things about the reading problems of even their better readers. Every science book has a variety of illustrations. These are put there to help the pupil get meaning from what he reads. But he must use them. (Often he needs help in learning how to interpret illustrations, especially those that involve unfamiliar symbols. Without this help he may get some pretty weird concepts.

Authors of textbooks generally define new terms at the place in the text where the term is first used. This is a commendable practice; but does it always achieve its purpose? In one text where the author introduced the term "carbon dioxide," it was defined as "the gas that makes charged water fizz." Youngsters were asked to read the sentence along with the definition and then to write what it meant to them. Some wrote that it meant that carbon dioxide was the gas that bubbled in a storage battery when it was being charged.

On another occasion a science teacher was trying to find out what meaning her pupils associated with the term "gene" when they read it in their text. One girl wrote that males have Genes in their cells, but females have Jeans in theirs.

Another science teacher made an interesting discovery when he attempted to find out what meaning his pupils associated with certain nontechnical terms used in their physics text. In one of the reading assignments was this sentence: "Water tends to rise to the same level in communicating vessels." The material in which the sentence appeared was accompanied by a line-drawing illustration. After his pupils had read the material on the page, the teacher asked them to underline the words "communicating" and "vessels." He then asked them to close their books and to write what "communicating" and "vessels" meant to them. Some wrote that "communicating" meant "talking with each other," and "vessels" meant "ships." What did the sentence mean to them? Just this: Water tends to rise to the same level in ships that are talking with each other.

If you think that it is impossible for youngsters to associate such meanings with terms like these, try it out with the science materials that you are using.

Textbooks and other printed material are an important part of the equipment for learning science. No science teacher would expect youngsters to use laboratory equipment without instruction in how to use it. Nor should they expect them to use textbooks effectively without instruction in the techniques of proper use. When science teach-

ers understand these techniques and then take time to teach them to their pupils, they are assuming the kind of responsibilities which I believe they should take for teaching reading.

I am convinced that reading has a relationship to effective learning in science. If science teachers would concentrate on helping junior high school youngsters improve their abilities to learn—using science as the medium—they would, in the end, be more effective than they now are in:

- a. realizing a wholesome and personally satisfying development of the individual;
- b. educating for effective citizenship in a democracy;
- c. supplying the scientific manpower needed to maintain a secure and prosperous nation.

What Are the Responsibilities of Social Studies Teachers for Teaching Reading?

By

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WE shall approach the question of the responsibilities of social studies teachers for teaching reading by analyzing (a) the skills an effective student uses as he reads and studies various types of social studies materials, and (b) the role of social studies teachers in helping him attain these skills. Let us take a student who is highly mature with reference to the techniques, attitudes, and habits of thinking which he employs in reading and study. An analysis of the processes he uses will reveal the goals toward which we should work.

Our hypothetical student has established effective basic reading habits. With each fixation of the eyes he perceives a group of words as an idea, which, with preceding and succeeding ideas, he structures into larger thoughts. He varies his rate of reading and his thought processes according to the type of material and his purpose for reading. He has learned that the difference in effective rates is not so much in the visual work of word recognition as in the kind of thinking required.

He knows that to comprehend printed material, the reader must be able to recognize words and understand their meanings. In this respect social studies materials offer unusual difficulty. Some of this difficulty arises because their vocabulary is extensive and specialized. Much of the vocabulary deals with ideas and events which are remote in time and in space. For such concepts, our student has had little help from his personal experience. Even when the vocabulary deals with today's institutions and events, the concepts involved are likely to be complex and abstract.

Our student has learned that if he applies common meanings to certain words in his regular vocabulary, he may have misleading images

and referents. He has found, for example, that *foreign ministers* do not preach, that *watered stock* refers neither to water nor to animals, and that the *iron curtain* contains no metal drapery.

At each step his teachers, if they are professionally competent, have reckoned with the abstractness of social studies concepts. They have anticipated vocabulary difficulties, giving attention to both pronunciation and meaning. They have utilized existing backgrounds of experience as a basis for developing understandings, and they have used pictures and concrete activities for filling gaps in these experiences. They have helped pupils to learn to use contextual clues for inferring meanings, and to check such inferences by reference to the glossary or dictionary. In the case of words with multiple meanings, they have guided pupils in judging which of several dictionary definitions best states the meaning of the word as used in the particular context.

Let us analyze further the skills used by a highly successful student. From them we can deduce the responsibilities that the social studies teacher has for teaching reading.

First, let us watch the student's use of the textbook. He *does* use a textbook. He values it because it gives a concise, systematic, comprehensive, organized treatment of the subject. He has learned that the text must be supplemented with wide reading from a variety of materials. But it stands as a basic core, an organized framework within which ideas from other sources can be woven and evaluated. Of course the facts and concepts from the basic textbook are likewise examined in comparison with those from other textbooks and sources.

How then does the ideal student deal with this book? He studies it; he reads it to understand ideas, to organize related content, to remember significant facts. To this task he applies basic principles governing effective learning. He studies with a purpose; he studies with intent to remember; he organizes ideas; he stops at intervals for self-recitation; he reviews. Specifically, he surveys or previews the chapter, noting the title and the headings of major subdivisions. He does this for an over-all view and to identify and center his attention on the author's main problem and his general organization. The student considers these problems and subproblems in relation to problems previously studied. He pauses to recall what he already knows on the subject.

Before beginning the reading of one section or subdivision in his text, the ideal student scans the material to discover the main question which the author is attempting to answer. He notes the major subproblems. Usually, he does this by noting the boldface or italicized headings. If there are no such headings, he does it by skimming. He recalls the question which the author is attempting to answer and reads to find the author's answer to his question. As he goes along

he identifies the main points and the supporting points; he distinguishes between major ideas and illustrations of these ideas; he distinguishes between the relatively important and unimportant content; he subordinates or discards irrelevant matter.

After a section has been read in this manner, he recalls first the main points, then the supporting points, and finally the important details. He now skim-reads the material he has just recited to ascertain that he has made no serious omissions in his recall. He attacks succeeding sections in like manner. At the end of the chapter, he reviews it as a whole for a grasp of the total organization and a review of the important ideas.

During the process described above, our ideal student gives special attention to place names and unfamiliar words. If an unknown place location or physical feature is crucial to understanding, he refers to a map. Other unfamiliar words he first studies in context. Whether he checks their pronunciation and meaning from the glossary or dictionary at this time or waits until later depends upon whether the term is the key to understanding the basic idea. When charts and tables are referred to in the text, he studies them. He identifies in them the facts to which the author has referred. He studies the additional facts given in these charts and tables and evaluates the author's point of view and conclusions in the light of these facts. He considers whether the facts are sufficient to support the author's conclusions or whether they point to different conclusions.

Our student has been taught to supplement information from the text with facts from other sources. He refers to a variety of reference materials: atlases, encyclopedias, yearbooks, other textbooks. He uses skimming techniques for locating particular items in lists and in connected discourse. He compares facts from these sources with those of the textbook. He is alert to discrepancies and, when they are found, he checks the qualifications of the authors and the sources of their data. He judges which facts are most likely to be valid.

The above description has assumed that the student is using a basic textbook. He may use many sources. Obviously, he does not need to use the text as a basic source of information as he seeks to collect, organize, and summarize data on one particular problem.

The teacher is responsible for teaching her pupils the use of tables of contents, indexes, and lists of tables, charts, graphs, and maps in dealing with their own textbooks. This is done when there is need to locate specific items and when additional training is needed.

Rather than referring students to certain books, pages, and paragraphs, the teacher trains students to use these sources independently. She consistently helps students to judge which kinds of reference books are most likely to contain certain kinds of information.

The social studies teachers instruct their pupils in how to use maps and globes. They teach the meaning of special symbols when they are needed. They have pupils convert lines, dots, colors, shadings and other symbols with their accompanying keys and legends into ideas of direction, distance, location, topography, climate, production, and transportation systems. They teach that maps and globes are indispensable aids and that some ideas are not adequately conveyed through verbal presentations. Maps and globes are unique tools of the social studies. The need for detailed training in their use is generally recognized. The needed skills and the techniques for teaching them have been well presented in a number of sources (8, 9, 11).¹

The materials with which our ideal student has dealt so far are highly condensed, quite abstract, basically factual. How are they made meaningful? How are they converted from dead to living matter? How do they become significant in his daily living? Of course the alert social studies teacher is using many means of making concepts concrete and personal. Among these are other types of reading materials.

Our student is a reader of the literature of biography, fictional biography, and historical and geographical fiction. He reads for enjoyment, and he reads as a student of the social studies. His teachers have carefully guided him into literature related to the topic being studied. They know that one's concepts must be clarified, refined, and enriched by experience in varied concrete situations. The usual person reads historical fiction primarily for the characterization and plot; but he incidentally acquires some conception of the geographic, economic, social and political conditions and some insight into the beliefs and feelings characteristic of the time and place.

On the other hand, our mature social studies student is more critical and perceptive. He has been taught to differentiate between the factual and the fictional. His social studies teacher has encouraged him to be alert to the details of the historic or geographic background in which the characters move—their manner of living, the impact of events on their lives; the influence of location, topography, and climate; and the relation of these factors to the events of the time. The student questions whether the situation or condition of the principal characters is typical or is atypical for the time or the place. He guards against allowing a strong emotional experience with an atypical situation to distort his view of the whole. He guards against allowing the atypical to symbolize for him the typical.

In connection with units of work, teachers have made available varied narrative and fictional accounts. They have provided materials with different levels of reading difficulty so that all students can find

¹Bibliographical references are listed on pages 96-97 at the end of this article.

some to read independently with pleasure and profit. Teachers have discussed with their students the related fictional materials they were reading. Inevitably, with contributions from different sources, discrepancies in facts or concepts are found among the various fictional presentations. Discrepancies are found also between them and textbook accounts.

Such disagreements lead to joint teacher-pupil problem solving: to rereading material for more exact interpretation, to recognition of the significance of qualifying phrases, sentences, or paragraphs; to investigation of the author's background and his scholarly reputation; to development of criteria for judging what was intended as factual and what was intended as fictional; to judgment as to whether the setting or the condition was general or unusual; to drawing conclusions as to the most probable realities.

The genuine student of the social studies keeps abreast of current events; he is conversant with the arguments on both sides of controversial issues; he himself is beginning to grapple with problems of citizenship. Today, he has many sources of information or of misinformation; many sources for ready-made opinions. But along with the other sources, he is a reader of current materials—newspapers, magazines, books. He needs all the reading skills employed in the effective reading of other social studies materials, plus other skills. He has a greater need for suspended judgment and critical evaluation. The writer who attempts a fair, complete, and impartial analysis of a current issue has a difficult assignment. The reader's assignment is likewise difficult.

With the newspaper, our highly mature, hypothetical student reads headlines to determine which topics to follow up. For superficial interests, the first several paragraphs suffice. For deeper interests, he skims the article to locate facts in relation to the writer's generalizations. He questions whether these facts harmonize with, and whether they are adequate to the writer's generalizations. He is familiar with more than one newspaper. He has discovered whether the interests of the publisher and owner are revealed in the selection of the news, as well as the treatment of what is selected.

This exceptional student has regular contact with a variety of magazines, and he uses the *Reader's Guide to Periodical Literature* to locate other articles on his special interests and problems. Among the articles selected on the basis of titles, he often skims to locate the particular portions which directly apply to his problem or interest. Often, he merely skim-reads an article for the author's main thesis and general point of view. This he is able to do if the subject is familiar and the style is direct. As he does this he notes whether the author supports his point of view with facts or with opinions.

But our student knows that it is not the writer alone who must be objective. He knows that as a reader he must strive for an objective point of view. He knows that research has shown: (1) that the reader with preconceived attitudes and opinions tends to remember those facts that support his own point of view, and not to remember those that oppose it; (2) that the biased reader tends to interpret the facts to support his own point of view, whether it is pro or con; and (3) that he tends to accuse the author of prejudice because he himself holds an opposite prejudice (3; 10). Our student therefore attempts to withhold judgment until all the facts are in, and until they are weighed. He tries not to over-generalize from isolated cases.

But he does not remain forever in this state of balance; he does not hold to a fence-straddling position. Issues must be resolved; decisions must be made; action must be taken. One should not merely view the action; one should participate in the action, whether to restrain or to promote. Therefore, to generalize rightly and to draw conclusions soundly are the final acts.

Good social studies teachers have assumed responsibility for teaching pupils that the reader's first obligation, regardless of his personal opinion, is to understand the author's meaning. They teach their pupils to judge which of several statements are factual or opinion and to judge the validity of assumptions; they teach pupils to examine the adequacy of evidence given in support of opinions; and they teach pupils to discover the fallacies in their own hasty conclusions (7). The ideal student learns to read and think in these ways.

The attitudes and the skills needed for effective reading are not simply or quickly acquired. With training and experience, they develop in depth and power and in widening areas of application. It is difficult to say that at any given level any one of them is begun, or that any one of them is completed. Where the junior high school teacher can begin to develop pupils' reading abilities depends upon pupil skills, interests, and previous training. At whatever point that may be, the junior high social studies teacher can make a vital contribution.

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IPART 4

Part IV. Remedial Reading

How To Conduct a Remedial Reading Program

By

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REMEDIAL reading programs vary considerably. Some are broad and flexible but many are narrow and rigid, putting all children through the same procedures.

Almost any remedial program will show good average gains in pupils' reading and therefore appear to have a moderate degree of success. These gains are the result of: (1) giving the pupil material suited in difficulty to his reading maturity; (2) stimulating his interest in reading; (3) increasing the emphasis on reading instruction; (4) setting aside more than the customary amount of time for reading; (5) instilling new hope in the child; and (6) associating the pupil more directly with the teacher. Even otherwise technically unsound programs will benefit sufficiently from one or more of these factors to produce slight increases in the average reading performance of pupils.

Among the important aspects of sound programs that I shall discuss are the following:

1. Selecting pupils to be given special help in reading
2. Diagnosing the instructional needs of disabled readers
3. Making available the type of remedial instruction needed

1. Selecting pupils to be given special help in reading

The problem of identifying the pupils who will profit from remedial instruction in reading is a complex one. There are many poor readers in junior high school who cannot be classified as disabled readers. All children reading in the lower 20 percent of the junior high school population, for example, cannot necessarily be classified as disabled readers even though they are poor readers. Indeed, most of them are

not so classified since they are reading as well as can be expected. Many truly disabled readers are average readers, but they are above average in general capability and therefore should be reading even better than they do. The extent of retardation solely on the basis of grade placement or age is insufficient evidence upon which to identify a pupil as one who needs remedial instruction in reading. Pupils who are doing poorly in reading are of three kinds. First, there are those who are truly disabled readers. Secondly, there are those who are slow learners in general. Third, there are those pupils who have major problems other than reading difficulties which make them inefficient learners; however, their reading growth suffers along with other intellectual and social development. They, too, need help; but of course teachers cannot solve all the problems of human growth and development.

The disabled reader is a pupil who is so handicapped in reading ability that his potential educational career is in jeopardy. The vast majority of disabled readers are low both in reading and in other educational achievement in comparison with their general intelligence. Poor reading ability handicaps a pupil in all school subjects which require much reading as a major tool of learning.

Of course, a child may be poor in reading and other school subjects for a variety of reasons other than disability in reading. He may be a slow learner, he may have emotional problems for reasons other than poor reading, or he may have neurological or physical limitations which make his reading achievement less than his general or verbal intelligence indicates that it should be. The disabled reader is one who has failed to grow in reading proficiency as well as might be expected from his intellectual capability and his achievement in things not requiring reading. Pupils of this type need, and will profit from, remedial instruction in reading. The disabled reader must be identified so that a thorough diagnosis of his reading problem can be made and so that appropriate remedial instruction can be given.

Pupils who are slow learners also require special, although different, consideration. As a rule they are not reading disability cases. They may be reading as well as they can be expected to read. Unfortunately, they cannot gain much from the typical junior high school program. They need school work and reading instruction adjusted to their abilities and needs. Much time and energy often are wasted in trying to solve the problems of these pupils by means of remedial instruction in reading. Slow learners can best be served by adjusting the curriculum to their abilities and by teaching reading in ways suited to their needs. Such pupils should be identified and be provided appropriate learning experiences.

The child who has deep-rooted personality problems or physical limitations which hinder him from applying himself to learning situa-

tions in general should also be identified and sent to the proper specialist for help. Such a pupil's reading instruction will need to proceed in light of the specialist's recommendations. Caution should be exercised in concluding that personality problems cause reading difficulty in a specific case, since reading disability itself can be highly disturbing to a child. We should not be too quick in looking for excuses.

Data on reading progress alone are not sufficient to decide whether a pupil is a disabled reader, a slow learner, a child with some other limiting condition, or a normal learner who needs only continued developmental reading instruction. These decisions will need to be made after studying the data that can be obtained from testing programs, elementary school curriculum records, observations and informal testing during developmental reading instruction, as well as from recommendations obtained from other teachers.

In order to classify a child correctly, information about his general mental ability, as measured by a test which is free from a reading component, is needed. His general verbal competency, as indicated by his ability to understand things heard, is also useful. Evidence of the success a child has had in non-reading fields, such as arithmetic computation, will indicate how well he has been able to apply his general intelligence to a type of learning other than reading. If the pupil is relatively higher in general intelligence, verbal competency, and arithmetic computation than he is in reading, he is probably correctly classified as a disabled reader, even though he shows signs of personality problems. If he is low in all of these areas, including reading—he is usually a slow learner. If he is high in intelligence and low in the others and demonstrates personality difficulties or if he is easily distracted, he may have a deep-rooted emotional disturbance or a physical limitation which should be investigated by some other specialist.

Only children who are correctly classified as reading disability cases should be sent to remedial reading teachers. Among these, only the pupils whose problem cannot be solved in the developmental reading program should be admitted to the remedial program. There is unfortunately a tendency to send slow learners, emotionally maladjusted pupils, and disciplinary cases to the reading center for remedial instruction in reading. The correction of reading difficulties is itself a difficult task. If the remedial teacher is confronted with other problems such as discipline, low ability, and emotional aberrations in pupils, he has only a slight chance of being successful.

The following criteria should prove helpful in deciding which pupils should be admitted to remedial reading groups at the junior high school level:

- a. Pupils who have an I. Q. above 90 as measured by a non-reading test. Those lower can usually be handled elsewhere.

- b. Pupils who have reading disability as their major problem.
- c. Pupils who ask for special help after their problem has been discussed with them and, perhaps, their parents.
- d. Pupils whose parents request help, provided pupils' characteristics satisfy the other criteria.

•Only a small proportion of behavior problems or emotionally disturbed children should be admitted to any one remedial group.

2. *Diagnosing the instructional needs of disabled readers*

Any attempt to correct reading difficulties must be based on a thorough diagnosis of the reading skills and abilities of the child. There are many chances for a pupil to fail to develop some of the skills or abilities which are important for continued growth in reading. There is also the chance that he may have so greatly emphasized a given skill that the balance between skills and abilities may become disproportionate and thus detrimental to his total reading achievement. For example, one child may so emphasize the building of sight vocabulary that he fails to develop independent recognition techniques. Another child may so thoroughly master the word recognition techniques that he fails to understand the meaningful nature of reading and therefore does not understand a word he reads.

Uniform remedial procedures, be they ever so ingenious, have little merit in solving the reading problems of disabled readers, no two of whom are exactly alike. It is only when we recognize that remedial programs must be based on diagnosis, and methods varied as indicated, that successful growth for all disabled readers will occur.

Modern diagnostic programs are designed to answer the following five questions:

a. *What is the exact nature of the reading training needed?*—The diagnosis must reveal, as clearly as possible, the exact nature of the child's reading difficulty. This is determined by an appraisal of the pupil's reading strengths and weaknesses. Finding out just what, in the reading pattern of the disabled reader, is retarding his reading growth is a most important element in planning his remedial program. The diagnostician must do more than detect that the child's difficulty is in the word recognition area, the comprehension area, or the efficiency area. He must find out just which skills in the area of weakness the child lacks, which skills or techniques he has overemphasized, and what faulty techniques he is attempting to use.

b. *Where can the disabled readers' problems best be handled?*—In general, the disabled reader is given instruction (1) in the regular developmental program, which I believe should include regular classes in reading; (2) in small groups at the reading center; or (3) indi-

vidually reading at a reading clinic. The teachers in the regular developmental reading classes can and should give remedial instruction to the majority of disabled readers.

Some pupils will need more attention than can be given in the developmental reading classes. They will best be served in smaller groups in the junior high school reading center. Pupils with similar problems will be taught together in the reading center. Those pupils needing word recognition instruction will meet in one group; those weak in basic comprehension in another; and those needing training in order to increase their reading efficiency in a third group.

A few pupils having complex disabilities will have to be referred to a reading clinic for individual instruction. The allocation should be made according to the extent and type of disability involved and the child's attitude toward and adjustment to his problem.

c. How can the remedial instruction be most efficiently conducted?—Remedial programs must be very efficient since they must develop reading skills and abilities at an accelerated rate for pupils who have not progressed even as well as other pupils with the same general capabilities. In the most efficient way possible the remedial program must overcome the unfortunate approaches to reading that have limited the reading growth of these pupils. The diagnosis must give information about the following: level of difficulty of the material to be used; type of material that will best suit the kind of instruction needed; pupil interests that can be tapped to stimulate reading; means to be used to demonstrate to the pupil that he is making progress in reading; desirable length and frequency of remedial lessons; and means of encouraging independent reading by the pupil. This information is vital to the success of a corrective program since it indicates ways of satisfying the basic principles underlying all remedial work in reading, irrespective of the nature of the correction being made.

d. Does the pupil have any limiting condition which should be corrected or to which the program must adjust?—All of the factors that cause reading disability in the first place may be conditions which would limit the success of remedial instruction. Such conditions as poor vision or hearing, for example, might interfere with remedial instruction. Whenever possible, such conditions should be corrected prior to the start of remedial work. It should be recognized that correction of such causal or contributing factors does not overcome the need for remedial instruction. Correction will, however, increase the child's chances for success in the remedial work. Many times a limiting condition within a pupil cannot be corrected. Then the remedial program will have to be modified in order to adjust to the limitation.

e. Are there conditions in the pupil's environment that might interfere with progress?—The entire reading environment of the pupil

must be in tune with his instructional needs if remedial work is to be successful. The parents, in their understandable zeal to help their child, or their critical attitude toward the child may create emotional tensions which greatly interfere with possible growth in reading. Parents can and should contribute to the success of a remedial program, but they will have to know what to do and what not to do. The reading environment within a school should also be adjusted to correct the pupil's reading problem. All too frequently, the correction of reading is hindered by unreasonable demands which are placed on the pupil throughout the day. There is little use in adjusting the difficulty of material to the level of the child for an hour of remedial work, if, for the remaining five hours of the day the child is confronted with reading tasks far beyond his reading capability. Teachers must realize that nothing but discouragement results from a pupil's holding a book which he is expected to, but cannot, read.

3. Making available the type of remedial instruction needed

On the basis of the diagnosis, remedial instruction is planned. The types of remedial work that may be needed fall roughly into four categories:

First, there is remedial training which is designed to develop greater competency in the area of word recognition.

Second, there is remedial training aimed at improving comprehension.

Third, there is training designed to increase the speed of reading comprehension and to improve reading efficiency in other ways.

Fourth, there is remedial work in which the major goal is to stimulate the reluctant readers to read.

Techniques for correcting difficulties in all of these must be part of the equipment of the remedial teacher so that the one needed may be emphasized for a given disabled reader.

The area of word recognition is in itself so complex that many limited remedial programs focus on this phase of reading instruction alone and some on just minor parts of this phase. The remedial work in word recognition varies all the way from what is implied in such ridiculous statements as, "Just teach the child the letter sounds and he will know how to read," to well-rounded programs in word recognition which attend to the many balances that must be maintained and which develop the many skills and knowledges that are essential for independence in word recognition. The fallacy of assuming that a letter-by-letter sounding method will solve word recognition difficulties can be tested by trying to sound out the line of print above, or any line of print, letter by letter. This method might work in reading such a

simple sentence as "A cat ran fast," but not such a sentence as "The author's relationship to his public is complex."

The maturing learner must develop the ability usually to analyze the words into clusters of letters if he is to develop independence in word recognition. He must also learn to use meaning aids—both to help him anticipate words and to check on the accuracy of his recognition. He must develop knowledge of word parts and acquire an ever-increasing sight vocabulary as well. He needs to be able to blend word parts together both auditorily and visually. Above all, he must maintain a balanced and flexible attack on words.

The diagnosis of word recognition problems must detect and the remedial program must try to correct the following types of word recognition difficulties:

- a. Insufficient sight vocabulary.
- b. Failure to associate meaning with words.
- c. Ineffective use of context clues.
- d. Ineffective visual analysis of words.
- e. Insufficient knowledge of visual, structural, or phonetic elements.
- f. Lack of ability in auditory blending or visual synthesis.
- g. Over-analysis in word recognition.
- h. Orientational confusion.

The comprehension area includes the problems related to inadequacies in basic comprehension abilities, in specific types of comprehension, and in inability to adjust to the demands of various types of material read. Inasmuch as the objective of all reading is to communicate with authors, the comprehension area is of vital importance. The ability merely to recognize words without understanding what the author is saying has little merit.

Therefore, the diagnosis of a comprehension difficulty must indicate the nature of the problem. The remedial instruction must provide for correcting the following types of comprehension problems:

- a. Inadequacies in basic comprehension abilities such as:
 - (1) Limited meaning vocabulary.
 - (2) Failure to use context aids to meaning.
 - (3) Ineffective use of structural aids to meaning.
 - (4) Inability to isolate and recognize thought units.
 - (5) Lack of sentence sense.
 - (6) Limited understanding of paragraph organization.
- b. Immaturity in specific types of comprehension abilities such as:
 - (1) Inability to read to retain information.
 - (2) Limited ability in reading to organize information.
 - (3) Lack of ability to read to evaluate and make critical judgments.
 - (4) Ineffectiveness in reading to interpret.
 - (5) Failure to read for appreciation.

- c. Inability to adjust reading to meet demands of content fields because of:
- (1) Insufficient knowledge of vocabulary.
 - (2) Limited use of basic study skills.
 - (3) Ineffectiveness in adjusting rate of reading to purpose and nature of material.

The slow, inefficient reader is frequently one who is deficient in some of the other areas of reading, such as word study or comprehension. He may also be one who lacks zest for reading. If any one of these is the cause of the inefficient reading, an attack on that basic problem is needed. There are, however, inefficient readers who have no such basic limitations. In these cases, the impeding habit must be diagnosed and the appropriate remedial procedures used. The following list suggests some of the more prevalent causes of slow, inefficient reading in all types of reading situations:

- a. Over-vocalization during silent reading.
- b. Over-analytical reader.
- c. Word-by-word reader.
- d. Habitual dawdling while reading.
- e. Unrhythmical reading.
- f. Pointing or excessive head movements.
- g. Extreme compulsiveness for detail.

The reluctant reader is one who has the necessary skills and abilities but who avoids reading. He has not discovered the values to be gained from reading and therefore reads but little. His problem is one which requires careful encouragement. For the most part, pupils who can read, *will read* if they are given suitable material and some encouragement.

There are a few pupils who have ability to read, but who need remedial training to overcome one of the following:

- a. Lack of breadth and intensity of interests in general.
- b. Inability to establish purposes for reading.
- c. Lack of persistence when material does not immediately answer reader's purpose.
- d. Inability to initiate own reading activities.

Most types of remedial programs attack one or more of the areas just discussed. They are usually successful in overcoming some reading disabilities. In summary, however, the truly successful remedial program is one that does the following:

- a. Bases treatment on the pupil's specific needs as shown by a thorough diagnosis.
- b. Emphasizes a child's specific instructional needs in relationship to broad reading development—not in isolation.
- c. Is well organized.

- d. Makes the processes meaningful to the learner and lets him help plan the correction.
- e. Considers each pupil as a worthwhile individual.
- f. Is encouraging to the pupil.
- g. Uses material suitable for the pupil in difficulty, interest, and maturity.
- h. Is broad enough to treat all types of difficulties.
- i. Is flexible enough to change as the child's problem changes.
- j. Has teachers who are energetic, optimistic, and well trained.
- k. Employs good, sound teaching procedures and interesting reading materials rather than artificial or mechanical devices, or any other bag of tricks.

How To Organize a Remedial Reading Program

By

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THERE cannot be a complete separation between a developmental and a remedial reading program. Both phases should be included in any complete reading program. However, the program can be orientated to stress either developmental reading or remedial reading.

The general nature of remedial reading instruction and the type of pupil it can best serve have been clearly stated by Donald D. Durrell in these words,

Although the regular class room teacher must assume major responsibility for reading instruction suited to the needs of children, some schools have many children who are so far behind the classes that special remedial reading instruction is necessary. Such classes are held under various names, such as "the reading clinic," "the reading workshop," "the reading club," "the reading laboratory," or the "special reading class." The commonest type of remedial class brings together small groups of children for 30 to 60 minutes of reading instruction each day.¹

When a remedial program is being considered for a school, the teachers, supervisors, administrators and reading consultant (if one is available) should agree on certain basic principles, including, perhaps, the following:

1. A remedial reading program is beneficial and necessary to a well-rounded program.
2. All teachers, both elementary and secondary, should be teachers of reading.
3. Individual testing can help diagnose and contribute to remediation of certain types of "retarded readers."
4. Some types of retarded readers may benefit by individual or small group instruction.
5. Parent education is necessary for the success of a remedial reading program.

¹ Bibliographical references are listed on page 117 at the end of this article.

6. Teacher education is essential for the success of a remedial reading program.
7. Proper grouping is important within the classroom to avoid unnecessary frustration and to provide maximum benefits from the teacher's instruction.
8. Reading is a process—not a subject.
9. The label "remedial" should not be applied to the program when discussing it with parents and pupils. Words without unfortunate connotations, such as "reading laboratory" or "reading club" should be used.

There are four definite aspects of any remedial program. The degree to which any of these four aspects is stressed depends upon the students, parents, staff members, and facilities. The organizers of the program must decide how much emphasis should be placed on each aspect. The four aspects or facets of a good remedial program are as follows:

1. Parent education
2. Teacher education
3. Individual and group testing
4. Individual or small group instruction

As with any curriculum program, the relationships among administrators, supervisors, teachers, and parents can cause a reading program to succeed or fail. The program is especially dependent upon teacher attitudes. Teachers must be convinced that the remedial reading program will improve the quality of learning. What does the reading program offer the teachers, pupils, and others? It can provide:

1. Assistance in educating the parent
2. Assistance to the teacher in within-class grouping
3. Seminars and workshops to help teachers learn techniques for handling the "teaching of reading"
4. Additional diagnostic data concerning retarded students
5. Assistance in teaching "retarded" students

What can the parents expect from the reading program? They can anticipate:

1. A better understanding of the learning problems of school children
2. Suggestions as to how to help the child improve his reading at home
3. A better parent-teacher relationship
4. A better understanding of the instructional program of the school

Most important of all is the child. How can the child be benefited by the program?

1. He can be helped to improve his reading abilities and his achievement in academic courses.
2. He can be helped to overcome frustrations and feelings of inferiority caused by failure to read up to the expected levels.

One method by which the four aspects of a reading program have been developed in a large county school system is described below.

1. Parent education

Parent understanding and cooperation are essential to the success of any reading program. At first, parents are invited to meet with the reading specialist at the Parent-Teachers Association meeting. Then an entire week is set aside during which parents may meet with the reading consultant, any time from 8:30 a. m. to 9 p. m. Pupils who are receiving individual or small group instruction are given a special invitation addressed to their parents. The invitation reads as follows:

----- JUNIOR HIGH SCHOOL

Date

Dear Mr. & Mrs. -----,

In our attempt to improve -----'s reading ability, we have placed her/him in a small group only for reading where he/she can receive much individual assistance. However, we feel that more improvement can be made if newly learned reading skills can be applied at home under your guidance.

To help you assist your child, we are inviting you to meet with our reading specialist from 8:30 a. m. to 9:00 p. m. any day during the week of ----- At this meeting, the reading consultant will confer with you on ways to assist your child improve his reading at home.

So that we may be able to schedule these meetings without conflict, will you please complete the questionnaire below and have it returned to school?

Sincerely yours,

Principal.

Student's Name ----- Section -----

I shall be able to meet with the reading specialist on ----- at -----
(time)

I shall not be able to meet with the reading specialist.

Parent's signature

In this way every interested parent has an opportunity to discuss his child's problems with the consultant. Of course, the reading specialist confers with the child's teachers before meeting with the parents.

In addition, an annual Conference on Reading for Parents is scheduled. All parents and interested individuals are invited to attend the school for the day's program. The program consists of a guest speaker and several reading demonstrations and lectures by educators. It is planned especially for parents of elementary and junior high school students.

2. Individual testing

Any authorized person may refer a student for a partial or complete analysis of his reading problems. Upon completion of the analysis, the reading specialist discusses the results of the analysis with the referring party and any other educator who is concerned with the case.

Specific steps are followed in referring a case. All teachers are expected to be familiar with the procedure so that only pupils who fall into certain categories are referred to the specialist. For this purpose every teacher is given an orientation sheet containing the following information:

Every junior high school teacher is aware of the wide range of ability and achievement which children bring to the classroom. Many children read well for their grade level; but some children have reading problems which hamper their general school achievement. Certain children having reading difficulties should be referred to the reading consultant; other should not be referred.

Children falling into the following groups should be referred:

- a. Students who have average, above average, or slightly below average intelligence and who exhibit difficulty with some or many phases of reading. These children have a high capacity level, but a low achievement level. In other words, if read to they are able to comprehend and answer questions about information beyond the level at which they read independently with understanding.
- b. Students who seem to be intelligent enough to read at a much higher level than they do, even though their intelligence tests scores are a great deal below average.

The following types of students **SHOULD NOT** be referred to the specialist:

- a. Mentally retarded or very slow-learning students who are reading as well as students with their mental capacity can be expected to read.
- b. Students with average intelligence who are not reading quite as well as they might, but whose difference in achievement and capacity is not significant enough to request outside help
- c. Students who have learning problems other than reading
- d. Students who are disciplinary problems because of factors other than deficiencies in reading.

Teachers who wish to refer students to the reading consultant are expected to follow these steps:

1. The referring teacher secures a Reading Referral Form and fills in the requested information.
2. He talks with other teachers who work with the student and seeks their opinions about possible causes for the pupil's reading difficulties. The teacher adds this information to the referral slip.
3. He gives the completed referral form to the student's core or English teacher for final processing.

4. Core or English teachers add their comments and take the form to the reading officer. They are asked not to send students to the office with this confidential information. (Core or English teachers may make referrals of their own, of course, as well as add to the requests made by other teachers.)

All referrals are made in writing and a separate referral form is made out for each child whom the specialist is to see. The reading specialist notifies the core or English teacher what will be done about each referral. If testing is done, the specialist provides teachers with results and discusses with them ways in which all class teachers may help the individual. If the reading specialist wishes to remove a student from class, he notifies the core or English teacher. Students are taken only from core or English classes, unless the science or other teachers request specific help.

In addition to the individual analysis which the reading specialist makes, he helps any teachers who request assistance in (1) learning to prepare reading material with appropriate interest content for the student, (2) deciding how to group within the classroom, (3) developing techniques for using word recognition tests, informal reading inventories, etc.

Teachers are also oriented concerning the meaning of certain terms basic to any reading program. As each pupil has a number of different reading levels, teachers are expected to use the right label for the level they are discussing. These terms include:

- a. *independent level*—the level at which the student is able to read 90% of all words with 90% comprehension.
- b. *instructional level*—the level at which the student may read with help from the teacher. At this level, the student will read about 95% of the words with 75% comprehension.
- c. *capacity level*—the highest level of understanding which the student has when discussing information read to him rather than by him.
- d. *frustration level*—the level at which the student is completely lost when attempting to read with no help. Standardised tests usually give scores close to the frustration level. (Less than 90% word recognition, 50% comprehension.)

Tests to be administered, among others, by the reading specialist include the Informal Reading Inventory, the Gates Associative Learning Test, the Detroit Test of Learning Ability, the Word Recognition Test, the Stanford Achievement Test (Reading), and the Wechsler Intelligence Scale for Children.

3. Individual and small group instruction

Individual or small group instruction is made available to those pupils who the reading specialist feels would be most benefited. This

program is extremely flexible. The pupil is returned to the classroom as soon as the reading consultant and teachers feel that he can achieve in the normal type of academic situation. After the pupil returns to his regular class, the reading consultant remains in close communication with the teacher. In this way, the reading material presented to the pupil in the special reading class is closely correlated with the printed material presented in his regular classroom. Techniques range from visual, auditory, kinesthetic, and tactile techniques to highly critical reading exercises. A monthly progress report on each pupil is sent to all teachers concerned.

4. *Teacher education*

Individual teachers are invited to meet with the reading consultant at their convenience to discuss any problems they might have concerning rewriting, grouping, and teaching techniques. Also, at the conclusion of every analysis, the teacher and consultant meet to discuss the prognosis and specific needs of the child. The specialist meets bimonthly with the individual departments (such as science, etc.) to assist in rewriting materials and to discuss basic methods in corrective reading. Teachers are also given special instruction in how to rewrite printed materials so that they will be easier for retarded pupils to read. A reading vocabulary study reader (pre-primer through sixth grade) is made available to all teachers interested in re-writing. Teachers are given the following suggestions for rewriting materials on lower readability levels:

- a. Take time to explore the pupils' background and to arouse curiosity.
- b. Make sure that an adequate background of experience and proper working concepts have been developed.
- c. Use as many basic words as possible.
- d. Make the sentences as short as possible—within reason.
- e. Try to start most sentences with the subject. The sentence may lose some of its literary style, but it will be easier to read.
- f. Introduce about one new word per sentence. The reader may be able to figure out the meaning from context clues. This is especially true if adequate background and concepts have been developed.
- g. Be sure every pronoun has a clear antecedent.
- h. Use picture clues wherever possible.
- i. Avoid flowery language. Stay at the level of oral language development.
- j. Watch the difficulty level of the concepts. Complex concepts often cannot be developed in sentences but need to be developed in paragraphs.

Seminars are held weekly for those teachers who wish to study and discuss topics pertaining to reading. Below is a typical outline of a seminar course:

I. Orientation of the Course

- A. Factors in reading retardation
- B. Types of retardation
- C. Case typing

II. Informal Techniques For Measuring Reading Achievement

- A. Purpose and technique for the Informal Reading Inventory
- B. Demonstration
- C. Analysis of results

III. Word Recognition

- A. Purpose and use of lists
- B. Administration of word recognition tests under supervision
- C. Analysis of results

IV. Spelling

- A. Relationship of spelling and reading
- B. Retardation in spelling
- C. Administration of spelling tests under supervision
- D. Analysis of test results

V. Standardized Achievement Tests

- A. Reading tests
 - 1. Survey
 - 2. Diagnostic
- B. Administering and scoring tests under supervision
- C. Analysis of test results

VI. Rewriting

The reading specialist also meets with teachers individually to discuss problems they may have in grouping within the classroom. Upon the request of the teacher, he helps determine the reading levels by means of informal reading inventories. He turns over to the teacher such information as the results of word recognition tests and group reading inventories so that the teacher may determine the proper grouping in each class. Each teacher makes the final decision concerning the use to be made of the information. In the final analysis, the teacher is the one who actually determines how the grouping is done.

The program which has been described is an evolving, dynamic one. Thus far, it has produced excellent results. Pupils participating in the program have, in most cases, had their reading disabilities and deficiencies remedied. The success of the program has resulted in large measure from the interest of parents, teachers, administration, and participating pupils, as well as from the careful use of evaluative instruments and instructional materials.

Reference

- (1) DURRELL, DONALD D, Improving Reading Instruction. Yonkers, N. Y., World Book Company, 1956. Pp. 340-41.

IPART 5

Part V. Evaluation To Improve Reading

How Can Teachers Determine Pupils' Reading Status?

By
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IF a teacher is to know whether or not he is succeeding in directing the children's reading activities toward desirable goals, it is obviously imperative for him to conduct a systematic and continuous program of appraisal. The results of this program will enable him to detect areas of weakness, and to shift emphasis from time to time as the need for a change in methods and materials becomes evident. If such an appraisal is not made at regular intervals, much time and energy will be wasted.

One of the objectives of reading instruction is to help each individual child progress toward desirable goals as rapidly as his capabilities and the instructional time allotted him will allow.

A study of these goals will reveal that most reading skills are initiated during the primary grades. During the intermediate and upper grades, these skills are refined and are reinforced by the *content area teachers*. The idea that learning to read is a lifelong process is not new. Goethe, the German dramatist and philosopher, said during the later years of his life:

The dear people do not know how long it takes to learn to read. I have been at it all my life and I cannot yet say that I have reached the goal.

Methods of Appraising Progress

In many schools, the child's progress toward desirable goals in reading is measured by teacher judgment in terms of a symbol on a report card. In many instances this type of appraisal is done in a superficial way, and the mark or symbol does not accurately indicate the degree to which the child is progressing toward reading goals. In a few other schools, marks of achievement are the results of a single reading test administered sometime during the latter part of the school year. Neither of these methods is entirely satisfactory to conscientious teach-

ers who wish to be more accurate in their appraisal, so that an adequate corrective program can be conducted.

A competent teacher appraises the students' progress in relation to repeated experiences with them. The results of standardized tests should always be tempered by the competent teacher's judgment. Analyzing the pupil's performance as he uses his acquired reading skills, observing his reactions and his attitude toward himself and school, are valuable criteria in appraising his progress in reading.

One way of validating teacher judgment is through the use of anecdotal records. Entries of pupil performance in silent reading, oral reading, study habits, attitudes and interests in a cumulative folder are helpful to teachers. There is no need to keep a case history for each pupil, such as might be developed in a clinic; but the recording of essential facts will validate teacher judgment.

Interest inventories, similar to those developed by Witty and Kopel,¹ may be used as an instrument in determining a pupil's reading habits and interests.² Information gleaned through the use of inventories may give valuable clues to a child's reading skills.

Teachers can also assure accuracy of judgment in appraising pupil achievement through the use of check lists. Many such check lists may be found in professional books on methodology in reading. The following outline is illustrative of the items which will aid the teacher in his appraisal.

1. *Pupil's Oral Reading*

- a. Ability to attack new and unfamiliar words
- b. Ability to get meaning from context
- c. Extent of speech difficulties
- d. Is the child a fluent reader? Does he read with expression?
- e. Extent of sight or recognition vocabulary
- f. Does the child omit or insert words?
- g. Extent of excessive head movements

2. *Pupil's Silent Reading*

- a. Can the child interpret :
 - (1) Sentences?
 - (2) Paragraphs?
 - (3) Story or complete unit?
- b. Understanding of words
- c. Comprehension skills :
 - (1) To get general significance
 - (2) To get implied meanings
 - (3) To follow directions
 - (4) To do detailed reading
 - (7) To understand the purpose of the author

¹ Bibliographical references are listed on page 133 at the end of this article.

² See pages 163-165 for an inventory "What Do You Like To Read?" prepared by Arno Jewett. Teachers who wish to reproduce this inventory for class use have permission to do so.

- (5) To anticipate events
- (6) To understand tone created by author

3. *Pupil's Study Skills or Techniques*

- a. To organize and outline
- b. To do precis writing
- c. To use different parts of a book
- d. To use reference material
- e. To interpret maps, graphs, and other pictorial material
- f. To relate pictorial and verbal material

The preceding list is not complete, but may serve as an aid to the teacher who wishes to construct a more extensive check list. With experience the teacher will formulate new criteria for evaluating the child's responses in oral reading, silent reading, and study skills.

In many school systems, the method used to evaluate pupil progress is through the use of informal or teacher-made tests. If they are constructed by experienced and competent teachers, they can be useful instruments in evaluating teaching efficiency as well as for supplying valuable clues to pupil progress. Their chief value is that they afford the teacher an opportunity to test pupils' progress toward the objectives of the class.

A more scientific method of appraising a student's reading progress is through the use of standardized tests. Most books on methodology in teaching reading advocate the use of standardized tests to determine the students' progress in reading and to isolate areas of difficulty. In too many instances, however, standardized tests amount to little more than occasional measures to determine whether a class is reading up to standards set by the test. Or worse yet, the results of such tests are used as a basis for assigning grades or as a criterion for promotion. Standardized tests are an invaluable aid in determining pupil progress and in identifying problems, provided, however, that these tests are administered properly and the results obtained are interpreted wisely.

Before discussing specific tests or techniques, let us consider some practices and principles for testing. The following ideas should serve as guides in any testing program :

1. Take the test yourself before you administer it to pupils. Then you should be able to determine whether it will give the measures you wish to secure.
2. Be sure you are testing. Do not, under any circumstances, "teach" the test or in any way give aid to the child after the test has been started.
3. Select a test that will give you the measures you desire. Each test is unique in that it measures certain skills, knowledges, attitudes,

and aptitudes; but no one test will be sufficient for all testing situations.

4. Select a test that has a range that is congruous with the reading abilities of your children. A zero score on some tests will indicate a reading level of second, third, or higher grade. If in doubt as to a child's level of reading ability, select a wide range test, that is, a test with a range of first to eighth grade, etc. On the basis of the results of such a test, you can then select a more precise instrument.

5. Follow the author's directions, including time limits, explicitly. This charge cannot be overemphasized. The writer has been gathering evidence which indicates that the issuance of any directions different from those listed in the manual will give spurious results which will vary significantly from those obtained when the author's instructions are followed accurately.

6. Select tests that are both valid and reliable. Validity refers to the extent to which a test measures what it purports to measure. Reliability refers to the consistency with which a test measures what it does measure.

7. Select tests that are easy to score. It is desirable that tests lend themselves to accurate scoring by clerical help or others not conversant with their contents.

8. Select tests that have adequate norms. Some tests may be standardized on a population that is not comparable to your group of students. Be sure the norms are expressed in units you desire.

9. Remember that a student's achievement on a test is a score which he made on a particular day and under specific testing situations. If the pupil's score is substantially different from what might normally be expected, administer another form of the same test as soon as possible.

An understanding of and adherence to the above ideas will enable a teacher to derive maximum benefits from a testing program.

Using Standardized Tests In An Evaluative Program

An evaluative program in reading is always directed toward the improvement of the pupil's reading ability. Specifically, the task confronting the teacher is sixfold.

1. Determine the pupil's present level of reading ability.
2. Determine his reading expectancy level.
3. Determine his degree of retardation, if any.
4. Determine his specific weaknesses, if any.
5. Determine, in so far as possible, contributing factors to any disability.
6. Outline corrective measures which must be taken to correct any deficiencies.

Determine the Pupil's Present Level of Reading Ability.—The most accurate method to use in determining a child's level of reading ability is to administer one or more reading survey tests. There are two general types of reading tests. One type—*A Survey Reading Test*—surveys a child's general reading ability. The results of the test are usually expressed in terms of a global score, which may be an age equivalent, a grade equivalent, or a percentile ranking. Another type, called an analytical test or a diagnostic test, analyzes a pupil's specific reading skills. The norms for these skills are usually expressed as percentile rankings. The difference between a survey test and an analytical test is usually one of degree rather than kind.

Most survey tests are divided into three parts, indicating a pupil's skill in general vocabulary, speed of reading, and comprehension. This fact alone indicates that survey tests are slightly analytical in nature.

The following tests are among those which may be used to obtain a measure of a pupil's general reading ability.

SURVEY TESTS

Name of test	Suitable for grades	Abilities measured	Publisher
1. Gates Reading Survey for grades 3-10.	3-10	<ol style="list-style-type: none"> 1. Vocabulary 2. Level of comprehension 3. Speed of reading 4. Accuracy of interpretation 	Bureau of Publications, Teachers College, Columbia University, New York 27, N. Y.
2. Traxler Silent Reading Test	7-10	<ol style="list-style-type: none"> 1. Rate of reading 2. Story comprehension 3. Word meanings 4. Paragraph meaning 5. Power of comprehension 	Public School Publishing Co., 204 West Mulberry St., Bloomington, Ill.
3. California Reading Tests	4, 5, 6; 7, 8, 9	<ol style="list-style-type: none"> 1. Vocabulary <ol style="list-style-type: none"> a. General b. Science c. Mathematics d. Social science 2. Comprehension <ol style="list-style-type: none"> a. Following directions b. Reference skills c. Interpretations 	California Test Bureau, 5916 Hollywood Blvd., Los Angeles 28, Calif.
4. Schrammel-Gray High School and College	7-16	<ol style="list-style-type: none"> 1. Gross comprehension 2. Comprehension-efficiency 3. Rate 	Public School Publishing Co.

SURVEY TESTS—Continued

Name of test	Suitable for grades	Abilities measured.	Publisher
5. S. R. A. Achievement Series	6-9	1. Work study skills A. Using sources of information b. Using a table of contents c. Using an index d. Reading charts 2. Reading 3. Language arts 4. Arithmetic	Science Research Associates, 57 W. Grand Ave., Chicago 10, Ill.
6. Iowa Test of Basic Skills ¹	3-9	1. Vocabulary 2. Reading comprehension 3. Language skills a. Spelling b. Capitalization c. Punctuation d. Usage 4. Work-study skills a. Map reading b. Reading graphs and tables c. Knowledge and use of reference materials 5. Arithmetic skills a. Arithmetic concepts b. Arithmetic problem-solving	Houghton Mifflin Co., 2 Park St., Boston, Mass.
7. California Reading Tests (formerly, Progressive Reading Tests)	7-9	1. Vocabulary a. Mathematics b. Science c. Social science d. General 2. Following directions 3. Reference skills 4. Interpretation of meanings	California Test Bureau.
8. American School Achievement Tests	4-6 7-9	1. Sentence and word meaning 2. Paragraph meaning 3. Arithmetic computation 4. Arithmetic problems 5. Language usage 6. Spelling	Public School Publishing Co.

¹ The reading portion of these tests may be used as Reading Survey Tests.

Determine the Child's Reading Expectancy Level.—In order to determine if a child or a class is reading at a level commensurate with their ability, it is necessary to determine as accurately as possible their reading expectancy levels. Authorities do not always agree as to the best measures to use in determining this level. Few, however, would question the advisability of using the grade equivalent of the mental age as determined by the Revised Stanford-Binet Scale.

These measures may be used to determine reading expectancy level:

1. Revised Standard-Binet Scale. Houghton Mifflin Co., 2 Park St., Boston, Mass.
2. Durrell-Sullivan Reading Capacity and Achievement Tests. World Book, Yonkers-on-Hudson, N. Y.
3. Pupil's ability to do computational types of problems in arithmetic. NOTE: The arithmetic computational portion, not the problem solving portion, of any appropriate achievement test will suffice in this respect.

The writer believes that oral language facility is perhaps the best single measure of reading expectancy level. Experienced and competent teachers can make a rather good estimate of expectancy levels of students they have known for a considerable period of time. Certainly, they know whether a pupil has the potential ability to read at, above, or below grade placement level.

Determine the Pupil's Degree of Retardation.—Since there is no universal definition of reading retardation, many different definitions, usually based on a person's educational philosophy, will be found. A common one would be as follows:

A child may be classified as a retarded reader if his actual reading level is one or more grades below his reading expectancy level.

Some reading specialists would want the margin between expectancy level and actual reading level to be two and, in certain cases, three years. Surely, a retardation of one year for a third or fourth grade child is more serious than one year's retardation for a senior high school student.

Marion Monroe, (2) in her book *Children Who Cannot Read*, uses the term *Reading Index* to indicate the amount of retardation. The *Reading Index* or R. I. is expressed as a ratio of the child's actual reading level to his expectancy level. For example, if a child's actual reading level is 6.0 and his reading expectancy level is 10.0, his reading index would be:

$$\text{Reading Index (R. I.) } \frac{6.0}{10.0} \text{ or } .60$$

According to Dr. Monroe, (3) this child would be classified as a retarded reader.

A teacher's or a school system's definition of a retarded reader would be an individual one, and would reflect one's educational philosophy.

Determine the Pupil's Specific Disabilities in Reading.—Determining the pupil's specific weaknesses in reading involves the administration of an analytical reading test. Many people ask this question: "Can you recommend a good analytical reading test?" This question is not easy to answer. No one test would be applicable to all testing situations. An attempt to classify reading or allied study skills into several categories would reveal the following:

1. Word meaning
2. Reading speed or rate
3. Comprehension—sentence, paragraph, and story or complete article
4. Word attack skills
5. Study skills

A teacher or principal should select a test that will give the measures desired. For instance, if he wishes to determine the extent of a group's *word meaning* in the several disciplines, he may administer the appropriate portions of such tests as *The Diagnostic Reading Tests* or *The California Reading Tests*.²

If a teacher wishes to measure specific comprehension skills, he may administer one or more of the following tests:

The California Reading Tests

The Gates Basic Reading Tests

If a teacher wishes to discover the word-attack skills a pupil has, *The Gates Diagnostic Reading Tests*, *Silent Reading Diagnostic Tests*, or the *Durrell Analysis of Reading Difficulty* should give the desired results.

Efficiency in work-study skills may be determined by administering either the *S. R. A. Reading Achievement Tests* or the *Iowa Test of Basic Skills*. Reading speed may be ascertained through the use of the *Trazler Silent Reading Test*, the *Gates Reading Survey Test*, or the *Diagnostic Reading Tests*.

A word of caution should be given concerning reading rate, particularly if rate is expressed in terms of *words per minute*. In such cases, rate should be interpreted in the light of the student's ability to comprehend at that rate. Some tests use a measure called *speed of comprehension* which is much more meaningful than *rate per se*. Also, expressing rate as a product score, i. e., rate in words per minute multiplied by percentages of questions answered correctly, notwithstanding probable inherent weaknesses, is much more meaningful than rate itself.

The information listed on the following chart should aid a teacher in selecting an appropriate test.

² The tests mentioned in this paragraph are listed elsewhere in this paper.

Name of test	Suitable for grades	Abilities measured	Publisher
1. Iowa Silent Reading Tests, Elementary Test.	4-8	1. Rate 2. Comprehension 3. Directed reading 4. Word meaning 5. Paragraph comprehension 6. Sentence meaning 7. Location of information <ol style="list-style-type: none"> a. Alphabetizing b. Use of index 	World Book Co., Yonkers-on-Hudson, N. Y.
2. Gates Reading Diagnostic Tests.	3-8S	1. Oral reading skills 2. Vocabulary 3. Reversals 4. Phrase perception 5. Word perception, analysis, etc. 6. Spelling 7. Visual perception 8. Auditory techniques 9. Silent reading	Bureau of Publications, Teachers College, Columbia University, New York 27, N. Y.
3. Diagnostic Reading Tests.	4-8 7-13	1. Vocabulary <ol style="list-style-type: none"> a. General b. English c. Mathematics d. Science e. Social studies 2. Comprehension <ol style="list-style-type: none"> a. Silent b. Auditory 3. Rates of reading <ol style="list-style-type: none"> a. General b. Social studies c. Science 4. Word attack <ol style="list-style-type: none"> a. Oral b. Silent 	Committee on Diagnostic Reading Tests, Inc., Kingscote, Apt. 3G, 419 West 119th St., New York 27, N. Y.
4. Silent Reading Diagnostic Tests, Experimental Form.	3-Up	1. Location within word where child tends to make errors 2. Recognition of words in isolation 3. Recognition of words in context 4. Recognition of reversible words in context 5. Locating word elements	Lyons & Carnahan, 2500 Prairie Ave., Chicago 16, Ill.

Name of test	Suitable for grades	Abilities measured	Publisher
<p>4. Silent Reading . Diagnostic Tests, Experi- mental Form— Continued.</p>		<p>6. Syllabification 7. Locating root words 8. Knowledge of word elements 9. Knowledge of begin- ning sounds 10. Knowledge of rhyming words 11. Knowledge of letter sounds 12. Synthesizing of words</p>	
<p>5. Gates Basic Reading Tests.</p>	3-8	<p>1. Comprehension a. Appreciate general significance b. Predict outcomes c. Understand precise direc- tions d. Note details</p>	<p>Bureau of Publi- cations, Teachers College.</p>
<p>6. Group Diagnostic Reading Apti- tude and Achievement Tests.</p>	3-9	<p>1. Reading tests a. Paragraph mean- ing. b. Speed of reading c. Word discrimina- tion. 2. Word discrimination a. Vowels b. Consonants c. Reversals d. Additions and omissions. 3. Aptitude a. Visual 1) Letter mem- ory. 2) Form mem- ory. b. Auditory 1) Letter mem- ory. 2) Orientation and dis- crimination c. Motor 1) Copying 2) Cross-out letter 4. Language a. Vocabulary</p>	<p>C. H. Nevins Print- ing Co., 1414 Brighton Road, Pittsburgh 12, Pa.</p>

Name of test	Suitable for grades	Abilities measured	Publisher
7. Durrell Analysis of Reading Difficulty.	Primer-6	<ol style="list-style-type: none"> 1. Listening comprehension 2. Oral reading 3. Silent reading 4. Word recognition and word analysis 5. Visual and auditory analysis of word elements. 6. Spelling 7. Handwriting 	World Book Co.
8. Gilmore Oral Reading Test.	1-8	<ol style="list-style-type: none"> 1. Accuracy 2. Comprehension 3. Rate 	World Book Co.

The foregoing is not a complete listing of analytical reading tests that may be used in discovering a child's specific weakness or disabilities in reading skills. Others are described in publishers' catalogues. Space does not permit a complete listing.

Determine, Insofar As Time and Circumstances Permit, Factors Which May Be Contributing to The Retardation.—The classroom teacher should not be expected to make a case-study type of diagnosis. He should, however, be sensitive to factors contributing to the retardation, such as serious visual and auditory anomalies. Mention should be made, moreover, that all the classroom teacher can and should do is to detect or discover possible visual and auditory disabilities which are contributing to the retardation.

While the classroom teacher will not have time to administer visual or auditory screening tests, he can recognize certain symptoms which may be manifestations of serious visual or auditory disabilities. The following list of symptoms of visual discomforts given by Emmett A. Betts (4) may be helpful in referrals to visual specialists:

1. Reddening and thickening of margins of lids
2. Scales and crusts on lids
3. Loss of eyelashes
4. Tearing (or watering) of the eyes
5. Inflammation or reddening of the eyes
6. Discharge around eyes
7. Cloudiness of pupil
8. Drooping of upper lid
9. Widely dilated pupils
10. Difference in size of pupils
11. Deviation of one eye
12. Forward thrusting of head

13. Tilting of head
14. Facial contortions, such as puckering face, frowning, scowling
15. Continual rubbing of eyes
16. Excessive blinking
17. Excessive head movement while reading

Again, the classroom teacher's responsibility is one of detecting auditory disabilities which may be contributing to reading retardation and of recommending cases for referral to a specialist. He should be on the alert for signs of poor hearing ability. The following list by Betts (5) may prove helpful:

1. Monotonous or unnatural pitch of voice
2. Faulty pronunciation and lack of clear or distinct speech
3. Turning one ear toward speaker
4. Poor spelling
5. Inattention
6. Frequent requests for repeating questions or statements
7. Difficult breathing, including mouth breathing
8. Earache
9. Discharging ears
10. Catarrhal conditions
11. Sinus infection
12. Frequent colds
13. Excessive accumulation of ear wax
14. Rubbing and picking at the ear
15. Head tilt
16. Reports of
 - a. Dullness or blocked feeling in the ear
 - b. Head noises, such as ringing or buzzing

The teacher has the added responsibility of making adjustments for the child with visual or auditory limitations. A child with visual limitations that cannot be corrected should be provided books with large type and should be seated in a favorable spot in the classroom. Children with auditory disabilities should be seated in the first or second row of seats. Furthermore, the teacher must set a good model of speech by enunciating distinctly and pronouncing words accurately.

In conclusion, one fundamental principle deserves repetition: the remedial program should be tailored to meet the needs of the pupils as determined by the evaluative program. Systematic and adequate appraisal of a reading program presents a challenge to the teacher. Adequate appraisal is a fundamental technique in the teacher's equipment for conducting a well-balanced developmental reading program at the junior high school level. Each teacher should attempt to acquire skill in evaluating the results of his efforts in directing the students' reading activities toward desirable goals. Furthermore, this skill in evaluation should be continuously refined and developed as the teacher gains professional stature.

References

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- (4) BETTS, EMMETT A., Foundations of Reading Instruction. New York, American Book Co., 1954, p. 182.
- (5) *IBID.*, p. 208.

How Can Standardized Tests and Other Evaluative Means Be Used To Improve Reading? What New Instruments Are Needed?

By

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PRIOR to 1935, literature in the field of reading contained little reference to diagnostic and remedial instruction. Standardized tests were occasionally employed to evaluate status or achievement. Few evaluative means, except teachers' subjective judgments, were then in current use for the improvement of reading skills, interests, and appreciation. With the possible exception of the use of the Snellen chart, no devices were in general use for the objective determination of capacity or function of the organism in relation to reading ability or skill.

The decade from 1935 to 1945 represented a period of greatly increased interest and widespread effort in the development and employment of objective means of diagnosing and evaluating reading skills of individual children. The terms "diagnostic tests" and "achievement tests" have gradually gained separate and distinct meanings. Also, many other terms designating instruments and devices of a diagnostic or remedial nature have come into the language of professional treatment of reading instruction and guidance.

In an effort to secure current information regarding the use of tests and other evaluative means now employed to improve reading skills, interests, and appreciation, the writer sent a questionnaire in the fall of 1956 to all of the reading clinics in the United States which were listed as dealing with cases of junior high school reading problems. At the time the results were tabulated, replies had been received from approximately 30% of the clinics. These replies represent 24 States in all sections of the United States. Among others, responses were received from California, Maine, Oregon, Nebraska, Wyoming, Michigan, New York, Louisiana, Florida, and Mississippi.

The responses represent clinics affiliated with public school systems, college and university schools of education, departments of psychology, English departments, and private psycho-educational or counselling clinics.

The questionnaire was organized to secure information on the following four basic problems:

1. What standardized tests are employed in the study of children's reading ability, skills, interests, and appreciation?
2. What other devices are used as evaluative means in the study of children's reading status?
3. What criticisms or limitations of current tests and devices do you feel to be relevant at this time?
4. What new tests, devices or instruments are needed to improve techniques of evaluation of reading skills, interests, and appreciation at the junior high school level?

The questionnaire was of the normative-response type rather than the check-list type. Therefore in the following report of the study, sample or specimen answers will be given rather than numerical totals of the responses.

Section I.—The question to which responses were given in the first section was as follows: "What *standardized reading tests* do you employ in your study of children's reading ability?" A total of 17 silent reading tests were specified as currently in use by the respondents. One test was mentioned by 21 clinics, another by 15, and a third by 13 respondents. Thus, more than 1 test is frequently used in studying a given group of children or an individual case.

In answer to the question, "How do you use test results to improve (a) reading skills, (b) reading interests, (c) reading appreciation?" the following typical replies were received:

1. To analyze special areas of difficulty, to stress the ones most needed in therapy, and to attempt to work with individual needs.
2. To identify weak areas within groups and to plan work for the school year.
3. To aid the classroom teacher in determining vocabulary and comprehension skills.
4. To select materials geared to areas of deficiency.
5. To assign materials at proper reading level.
6. To locate weaknesses and use results as a basis for instruction. Teachers of all subjects note these results, and then work out corrective and developmental programs.
7. To detect problem areas in association skills which are not usually measured by achievement tests.
8. To group children for the purpose of adjusting textbooks and other reading materials to the children's ability.
9. To guide the children's selection of library books.

10. To discover the degree of skill in rudimentary word attack power in phonics and syllabification in cases of low vocabulary power. To distinguish cases of poor vocabulary caused by learning techniques or dread of reading.
11. To determine a child's potential as a reader.
12. To check on pupil progress during remediation.

In addition to the 17 standardized tests identified in the responses, 6 informal reading inventories or skills tests were mentioned. Also referred to were 3 tests of study habits and skills, 4 mental or projective tests, and at least 1 of the following: a test of lateral dominance, a test of auditory discrimination, a test of flexibility, and a test "to get an estimate of personality patterns of the child."

Section II.—The question to which responses were given in the second section of the questionnaire was as follows: "What other evaluative means do you use in your study of children's reading abilities?" Space for naming four different types of devices or instruments was given with the specific question itemized in each case, "How do you use the test (device, instrument) indicated above to improve, (a) reading skills, (b) reading interests, (c) reading appreciation?" Responses to this section of the questionnaire were extremely limited. The device most frequently mentioned was the tachistoscope or flash meter. Other devices were mentioned in the following order: Reading accelerator (pacing or controlling) device, reading films, visual screening devices, auditory screening devices, and eye-movement cameras.

Purposes that respondents mentioned in relation to the tachistoscopic or flash meter routines were as follows:

1. To develop visual skill, recognition, and vocabulary ability.
2. To improve accuracy of word perception.
3. To develop wider eye span.
4. To afford motivation and practice in perception.
5. To increase speed of perception.
6. To stimulate total visual field; training in observation detail.
7. To improve speed and span of perception.

Comments about the use of the reading accelerator or controlled-timed device included these:

1. "We use this instrument to point out areas where improvement is needed (for motivation and practice)."
2. "This is a motivational device which is fairly satisfactory for improving speed; pupils like keeping a record of their own progress."
3. "To increase flexibility of rate, comprehension and vocabulary development."

The employment of visual screening devices was mentioned only five times, with the obvious comments that the device is used as a

screening instrument to determine the degree of a reader's visual efficiency.

The hearing acuity device was mentioned only two times, and without comment.

The eye-movement camera was mentioned only two times with the comment that this instrument is used to help in the recognition of fixations, regressions, etc., in the reading pattern of the individual.

Section III.—In this section of the questionnaire respondents were asked: "What criticisms or limitations of current tests and devices do you feel to be relevant at this time?"

The following statements are typical of the responses received:

1. "We teach the use of a variety of standardized tests. We do not recommend any one as better in an over-all sense, but try to determine values and weaknesses of each so that a test will be selected to suit the particular need of the individual or class population."
2. "Since we are completely opposed to the use of mechanical gadgets in attempting to teach what is essentially a thinking process, I am returning your questionnaire unanswered. Also, since we have found the use of standardized tests to have little value, we have been forced to substitute our own tests. They have been developed in such a way that our instructors are able to teach students what they specifically need."
3. "Achievement tests can be used, of course, to indicate areas and types of difficulties, but I know of no tests which reveal causes of educational difficulties except those made with the help of instruments."
4. "Our approach is concerned more with helping pupils with their attitudes toward reading than with improving their reading skills as such. They, therefore, receive a combination of group psychotherapy and reading help. Our aim in this program is to help these youngsters discover that reading can be fun by associating pleasurable activities and warm understanding with reading as such. This is a fairly recent approach in our clinic, but thus far it has seemed to produce rather striking gains for at least two-thirds of the youngsters. As a psychological clinic we are primarily concerned with children whose reading problems are due to emotional difficulties."
5. "The majority of children seen as remedial reading problems are what we term unsuccessful readers. We mean children who have average ability, have had the opportunity to learn to read in school, have no discernible physical defects and still are not doing an adequate job. On this basis and through research we believe that the reading problems in these cases are emotionally based and must be dealt with through psychotherapeutic means rather than strictly remedial work. In an evaluation procedure, we concentrate upon three areas—intellectual ability, personality development, and the academic retardation."

Section IV.—In the final section of the questionnaire respondents were requested to react to the following question, "What new tests, devices or instruments are needed to improve our techniques of evaluation? (Describe briefly as to structure and purpose.)"

Forty-eight specific responses were received. The materials mentioned most often as being needed have been classified into these four basic divisions:

1. Tests to determine interests of children, how best they learn, and the most effective methods of teaching
2. Better wide-range tests geared specifically for junior high school level
3. Tests which diagnose or measure more critically (quantitatively and qualitatively) the following values:
 - a. comprehension skills
 - b. vocabulary
 - c. phonics, word analysis, and word recognition
 - d. various reading techniques or specific skills
4. Tests in the area of reading efficiency in content subjects.

Typical responses are quoted below to indicate the needs of reading clinicians throughout the country today:

1. We need a measure of the flexibility of rate of comprehension as it is affected by the difference in the content of stories from the basic academic fields, such as mathematics, science, history, and English. The time factor would reflect the flexibility of rate of comprehension.
2. An instrument is needed to measure the conceptual background a child has in different areas—a rank order listing of concepts involved and necessary to the understanding of material in content areas (such as science) and a method of placing a child's achievement in such an order. The primary purpose would be to help children who are fluent in word recognition and fairly able in vocabulary, but who still have difficulty in reading in content-centered areas.
3. Devices are needed for retesting and reappraisal with subsequent adjustment of materials to attitudes of the pupil.
4. We need not only objective data but subjective data of the pupil's attitudes toward reading and toward himself, also, his interests which can be obtained through interview techniques.
5. Films in the area of the content subjects—i. e., social studies, math, science—are desired to demonstrate reading techniques peculiar to these areas. On higher levels, integration of text, lecture notes, and laboratory experiments are desired for understanding and review purposes.
6. Individual tests are wanted for the measurement of perceptual skills. While there is a great need for further research in the area of perceptual skills at the junior high school level, we feel that some device for measuring both auditory and visual perceptual skills would be extremely helpful with the non-reader or very poor reader.
7. There is need for a test which will yield a valid measure of the child's oral comprehension level, which should be indicative of the child's capacity to learn.
8. A battery of prognostic tests is needed to indicate those individuals who will profit by training in rate of reading. There is need for a work-sample type of test which measures skimming, scanning, thorough reading, rapid reading, and other indications of flexibility in reading.

9. Power tests are desired for severely retarded readers. Present tests do not adequately measure the skills which such readers have. Wide-range tests which can adequately measure a junior high school class, from top or college level reader to bottom or second grade reader are wanted.
10. We need better instruments for determining the potential achievement levels of junior high school students, i. e., better diagnostic instruments at this level.
11. An association test—constructed to measure the speed of association and to determine the memory (recall) factor is needed. A test is needed to determine how the individual child can learn best. Such tests should be based upon all the known techniques for teaching reading.
12. I know of no gadget that can substitute for a well-trained, ingenious, interested teacher. With confident pupils, consistent instruction, sound reading materials, and harmonious situations, reading ability will develop and interests will grow.

Summary Statements

In summary, the following ideas and conclusions seem important:

1. There is wide use of both formal and informal tests at the present time for individual and group analysis.
2. The large number of tests in use today indicates that no one specific form or type of test is felt to be distinctly superior to any or all others.
3. Although some respondents seem critical of the tests available today, nearly all respondents indicated the use of one or more objective or standardized tests at the junior high school level.
4. If the responses received constitute a fair sampling of current practice in reading programs, the devices and instruments mentioned have only limited use in clinical procedures today even though most of them were introduced to American teaching personnel a quarter of a century ago.
5. The criticisms of testing materials and devices today range from implied limitations of individual tests as the final authority, to the complete rejection of standardized tests by one respondent who favors the use of mechanical devices.
6. Under the heading of criticisms of tests, some respondents presented lengthy discussions of methods of studying children along the lines of psychotherapy, as well as ways of understanding children's frustrations and emotional difficulties for the obvious purpose of reclamation and development of personality.
7. Workers in the field of reading are conscious of a need for refined evaluative instruments in several reading areas.
8. References to tests involving such elements as (a) flexibility of rate of comprehension, (b) measure of conceptual background, (c) measurement of perceptual skills, (d) measurement of mental association, (e) measurement of association speed, and (f) measurement of current achievement level in relation to potential achievement level certainly indicate that reading specialists are alert to the need for new and better tests and devices for use in improving the reading of boys and girls.

IPART 6

**Part VI. What Is Being Done on the
State Level to Improve Reading?**

Junior High School Reading Programs in Connecticut

By

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READING programs in the junior high school are a frank recognition of the fact that at this level new types of reading abilities need to be taught. At the junior high level, pupils come face to face with subject matter specialists. In general, each pupil finds himself in contact with a different teacher for each area of study. Unfortunately, in many junior high schools certain conditions must be overcome before effective reading programs can be developed.

1. Many junior high school teachers have had few or no courses in the teaching of reading.
2. These teachers have been successful in their special areas and do not wish to risk their reputations in an area for which they feel unprepared.
3. Large classes and heavy teaching loads discourage teachers from attempting anything which would increase their load.
4. The average teacher is frustrated by the wide range of reading abilities and the dearth of reading materials made available to the school.

Getting the Program Started

In 1951 many junior high school reading programs in Connecticut had these problems. Also there were other factors that played an important part in developing a state-wide reading program. Within the State, junior high schools were organized in one of five different ways. Because of the different types of school organization and curricular pattern, it was impossible to lay out any one type of program that would fit all needs.

Many systems in the State felt that it would be impossible to set up any type of reading program without the help of a reading spe-

cialist. To make the service available, the reading consultant for the State Department of Education wrote to all secondary school principals in Connecticut announcing that he was available for conference purposes. Because Connecticut is a small state, one can drive from the central office in Hartford and be in any school in the State within 2 hours. Also the consultant had been on the staff of the State Teachers College in New Haven where he directed the reading clinic for three and a half years; thus, he was not a stranger to the school people in the State. At first, requests were slow in coming. Teachers wondered to what extent the consultant was going to be able to work with them and for how long a time. The consultant believed that he should stay with a group of teachers long enough so that they would feel that they could go on their own. Also, he felt that one satisfied group would do more for the state-wide program than several ineffectively advised groups which were frustrated because of lack of assistance.

Several points have guided the consultant in his work throughout the State:

1. Trying to find one teacher in the system who is willing to make a start
2. Being sure that the program gets the full support of the principal and that the administration provides funds for instructional materials
3. Getting other teachers interested gradually, if necessary
4. Not being discouraged if the program does not produce results immediately
5. Giving the course a name which does not have an unpleasant connotation.

For instance in one Connecticut town, a program was set up under the title of "Remedial Reading." Before long, parents were requesting the school to withdraw their children from the course as they did not wish to have them placed in a group with mental inferiors. The program was dropped for a year and then revived under the heading of "Directed Study." This time many of the same parents asked the school to include their children in the program.

The work of the consultant has many avenues. It has included demonstration testing and teaching in groups, consultations with teachers in groups and as individuals. In many cases it has meant returning to the school as many as 10 to 15 times to work on new reading problems.

After working with several school systems, the consultant was invited to offer a graduate course in secondary school reading at Hillyer College in Hartford. The main requirement of the course has been a project for the development of a reading program of instructional materials to be used by the teacher in his/her local school system.

In 1951 there was no record of any reading program as such in any secondary school in the State. At the present time there are 59 programs in various stages of development. To strengthen this state-

wide program 2 other activities have been carried on. Eight years ago, the State reading consultant, while a member of the faculty of the New Haven State Teachers College, established the Connecticut All-State Reading Conference. This is an annual 1-day conference held the first Friday in October. The registration fee is one dollar and a half. Exhibitors are invited to display their materials free of charge. Between one thousand and fifteen hundred teachers have attended the conference each year.

For the past 3 years a direct attempt has been made to have special features for secondary teachers. As book exhibitors are aware of this effort they have generously cooperated in exhibiting books on the high school level.

Because of the intense interest in reading which has been generated throughout the State, two of our outstanding reading consultants in the State, Mrs. Ann A'Hearn of the West Hartford Public Schools and Miss Eleanor Mahoney of the Hartford Public Schools, have organized the Connecticut Association for Reading Research. The organization has not only been interested in research but it has also played a prominent part in getting certification requirements for remedial reading teachers and reading consultants set up by the Connecticut State Department of Education.

Connecticut Programs in Action

Although there is a great deal of similarity in the programs throughout the State, there are no two that are identical. Each has been set up to meet the needs of the local situation. An example of an outstanding program is the one at the Valley Regional High School in Deep River, under the direction of Miss Dorothy Andrews. In this and other programs, these steps are taken:

I. Setting Up the Program

- A. A workshop is held for all teachers during which the plans for the program are presented and discussed. The cooperation of the teachers must be secured if the program is to succeed.
- B. The cooperation of parents is sought. A letter explaining the purpose and scope of the program is sent to all parents. The staff is made available for parent conferences.
- C. The guidance director and his staff are given an important part in the program. Information gathered about students is of great help to the reading teachers.
- D. The students are informed concerning the basis and purpose of the reading program.

II. Organization of the Program

- A. The program is all-inclusive :
 - 1. Any student in the school may enroll for reading improvement.
 - 2. Superior as well as retarded readers may come for help.
- B. The program lasts one period a day for a minimum of 6 weeks for each student.
- C. Records and reports emphasize pupil growth :
 - 1. No grades are given.
 - 2. Each pupil keeps a personal folder which includes graphs of his progress.
 - 3. At the end of the instructional period parents are sent a report of the progress.
- D. Groups are limited to 12-14 students, whenever possible.

III. Procedures and Services

- A. Diagnosis includes various approaches :
 - 1. Standardized tests are administered.
 - 2. Previous test records are considered.
 - 3. Informal tests are prepared and given.
- B. Activities are varied :
 - 1. Many reading materials with a high interest factor are used to foster pupil growth.
 - 2. Constant evaluation is made of pupils' progress.
 - 3. Machines are used when pupils can profit by them.
- C. Special Services :
 - 1. Reading improvement materials are made available to other teachers.
 - 2. A reading course for adults is made available through the local Parent-Teachers Association.
 - 3. Books and magazines on reading are made available to the teaching staff.

IV. Follow-up

- A. Through the guidance department and all members of the staff, a regular check is made of all students who have had the help of the reading center.
- B. Students are encouraged to return for additional help when it is needed or desired.

The reading program in the Wooster Junior High School in Stratford is quite different from the one described above. The block system of scheduling in which one teacher has the same group for English and social studies is used in Wooster Junior High. In this pro-

gram there are ten teachers who work with the coordinator of the program. He carries on an in-service program for all of the English-social studies teachers. Pupils are grouped according to ability and then are grouped within the groups according to reading level as determined by standardized and informal reading tests. The school librarian participates in the program and provides many interesting materials for research and supplementary reading.

A third program is being experimented with in East Haven, under the direction of Mr. John McPartland, the head of the English department. He does all of the testing and sets up instructional classes to fit in with study hall programs of the students. From the senior high school he has recruited honor students to help readers needing assistance. It is not uncommon to find several students being helped by as many honor students in a single period. Because of this experience, several of the honor students have decided that they would like to enter the teaching profession.

Connecticut is still in need of many trained persons to work in the field of reading but progress, thus far, has been more than satisfactory. In the past 5½ years we have moved from no secondary reading programs to a total of 59. Two institutions of higher learning, Hillyer College and the University of Connecticut, are offering graduate programs for reading specialists. The State Department of Education has set up specific requirements to be met by teachers wishing to be certified. The State now has a professional society for teachers of reading. Also, the State Department, in conjunction with the four State teachers colleges and the University of Connecticut, now offers an annual institute on reading for all teachers of the State.

The Development of a Program to Improve the Teaching of Reading in Texas

By

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OUT of 10,000 teachers and administrators at the annual meeting of the Texas State Teachers Association in November 1946, only 20 persons were present at the reading sectional meeting. Those 20 were appalled at the enormity of the job faced by teachers of reading and the apparent apathy of most teachers toward the improvement of reading. After electing a chairman for the year, the group urged that a program to attract teachers to the reading section meeting be planned for the following November. As the reading section was allowed only a small sum to defray program expenses, plans were made to use home-state talent.

In preparing for the next year's program, the chairman wrote to superintendents of every school system in the State with 500 scholastics or more and asked them to recommend persons qualified to give leadership in the program. Also, deans of the colleges of education in the universities and colleges of the State were asked for recommendations. As a result of this survey, about a hundred qualified people were identified and given leadership roles as discussion leaders, consultants, or recorders.

These hundred participants met in a business session and discussed the problem of trying to improve the reading programs in Texas schools. They decided the chairman would present the problem from the platform immediately following the lecture, "Children Can Learn to Read," the following morning. This was done. Then, a motion was made from the floor that a reading association be organized and that those in the audience who were willing to support such an organization drop their names and one dollar into the hat as it was passed. Three hundred and seventy-five persons responded. They became the

charter members of the present Texas Association for the Improvement of Reading.

Next, requests for a summer conference began to come in to the officers of the new association. Members felt that they needed the stimulation to be received from hearing and knowing authorities in the field of reading. Also, they felt that teachers could and would understand more completely the professional books on the subject of reading if they knew the authors. Also, many felt that they could not afford to spend their time or money to travel long distances to reading conferences.

Therefore, a meeting of the advisory board was called. This group included educators representing a cross section of the State of Texas—school administrators, a representative from the Texas Education Agency, and deans of the college of education from several universities, and classroom teachers.

The association now had \$375, which had been earmarked to provide a speaker for the next annual meeting at the convention of the Texas State Teachers Association during the following Thanksgiving holidays. More important, they had faith in the value of their work and there were local people who were willing to donate their time and talent. Therefore, plans were launched for the first Annual Conference of T. A. I. R. (Texas Association for the Improvement of Reading) to be held on the campus of Sul Ross State College in Alpine, Tex. One out-of-state speaker was invited for this conference; all other positions of leadership were filled by in-state people.

Before long some people were saying that Texas was too large for just one conference; and if the teachers in all parts of the State were to be served, there must be more than one conference each year. To finance the program, the executive committee decided to charge a registration fee of \$10 for a 4-day conference. Since only one speaker (out-of-state) was to be paid an honorarium and expenses, there was enough cash on hand at the close of the first conference to underwrite the expenses of the conference for the next year.

Next, the committee decided to extend the conferences to other State colleges and universities upon the receipt of a written invitation from the president offering the use of the facilities of the institution and the cooperation of the staff in the Department of Education. However, no conference would be opened until there was money in the treasury sufficient to underwrite the expenses of conferences already in operation plus the new one. This was sound business policy, for the association has enjoyed continuous growth and has never had to cancel a conference after it was once initiated.

At the present time the goal to provide a reading conference within a 200-mile driving distance for no more than \$50 in expenses to every

teacher in the State is in sight. There are nine annual conferences now held in cooperation with the following colleges and universities:

The University of Texas, Austin
Southern Methodist University, Dallas
The University of Houston, Houston
Prairie View A & M College, Prairie View
Texas Southern University, Houston
Stephen F. Austin State College, Nacogdoches
West Texas State Teachers College, Canyon
Sul Ross State College, Alpine
Pan American State College, Edinburg

From the beginning, the various publishing companies which serve the State have been considered partners in this undertaking. Association members realize fully that good teaching is dependent not only upon excellent teachers but also upon effective use of good material.

Publishing companies send their representatives to each conference with complete displays of new material available to teachers. They also send their consultants, who have helped teachers become interested in the effective use of good teaching aids.

During the first 10 years of its life, the Texas Association for the Improvement of Reading has brought the Nation's outstanding authorities in the field of reading to teachers. They have provided professional stimulation and leadership to more than 10 thousand Texas teachers who are proving each school day that *children can learn to read.*

APPENDIX I

Selected References on Developmental and Remedial Reading for High School Teachers and Administrators

I. DEVELOPMENTAL READING

A. Guides and Bulletins for Teaching Developmental Reading

ANDERSON, HAZEL. Reading Skills. E-2. First Semester Course. Outlines and Class Work. Illinois, Galesburg Senior High School, June 1953. 70 p.

A unit on Sophomore Orientation includes material on how to improve study habits.

———. Reading Skills. E-2. Second Semester Course. Unit outlines and class work. Illinois, Galesburg Senior High School, June 1953. 68 p. Continues work of first semester with emphasis on literature.

BARTHOLOMEW, BERTHA M., HOWE, JOSEPHINE B., and others. A Developmental Reading Program for the Frank David Boynton Junior High School., Ithaca, N. Y., September 1947, revised May 1948, September 1953, 89 p.

Guide is based on these theses: every teacher is a teacher of reading; the junior high school program demands a higher level of reading performance; the reading program should touch every child.

BETTER READING IN VERMONT SCHOOLS, Grades 1-12. Vermont, State Department of Education, Curriculum Bulletin No. 7, August 1952, 30 p.

Well illustrated bulletin showing various State reading activities and materials. Stresses the high school students' need for an enriched comprehension vocabulary and ability to discriminate in the use of words.

BETTS, EMMETT A. (ed.). Reading Comprehension Number. *Education*, 76: pp. 515-75, May 1956.

Includes eleven articles on reading from elementary through high school. Helen Caskey points out that junior pupils can be made active, thinking readers by being helped to ask questions before reading as well as by other approaches. Dr. Betts states that his studies indicate that eight out of ten retarded readers have normal or superior intelligence.

DE BOER, JOHN J. (ed.). A Symposium on Reading Problems: Unsolved Problems in Reading. Reprinted from *Elementary English*. Champaign, Ill., National Council of Teachers of English, 1954, 36 p.

Opinion of nine reading authorities that more experimental research needs to be done on such problems as: ranges of reading interests at

succeeding age levels; perception and recognition values of words; battery of tests for identifying specific comprehension needs, especially critical thinking; relationship between personality factors and reading achievement; meaning vocabularies of children at different age levels; and evaluations of the relative effectiveness of basic reading systems.

DEVELOPMENTAL READING. Workshop Studies. Kansas, Wichita Public Schools, 1951. 89 p.

Developmental reading is reading growth beginning at interest and ability level of pupil. Studies note that reading material for school use is available in much greater quantity, is more diversified, is better adapted to needs and abilities, and is of more practical value than formerly. Developmental reading units are presented for: Emotions (Psychology 12A), Learning To Use the Library (English 10), A New Approach to a Tale of Two Cities, the Transitional Period (Literature 12A). Specific aids and techniques are described.

DEVELOPMENT OF READING—STUDY SKILLS IN SECONDARY SCHOOLS. Texas, Port Arthur Public Schools, 1950. 155 p.

Program seeks to develop reading ability of all students in all subject matter fields. Special attention given to vocabulary building, word recognition and adequate concepts, comprehension, interpretation and analysis, reading rate, phonics, and use of study helps.

FAY, LEO, WAUGH, KENNETH, and PHILLIPS, BEEMAN. Implications of Reading Test Results for Developmental and Remedial Reading in Small High Schools. Indiana Research Bulletin, November 1955. 10 p. A definite reading program in the secondary school will pay rich dividends. Continuous instruction in reading is appropriate for all readers.

FIRST R., THE. Report from the Reading Workshop. Texas, Austin Public Schools, 1951. 144 p.

Outlines clearly factors in knowing children, helping teachers to determine reading levels within a section, working with groups, fitting materials and aids to children, outlining the basic concepts of a desirable reading program, developing language skills with bilinguals and with children of limited experience backgrounds, discovering techniques for developing the reading abilities of retarded and gifted learners, and providing recreational and extensive reading. Covers grades one through twelve.

GATES, ARTHUR I. Teaching Reading. What Research Says to the Teacher, 1. Washington, D. C., National Education Association. June 1953. 33 p. A comprehensive report of the practical implications of research in the teaching of reading. Covers the importance of factors affecting learning to read, such as methods and materials of instruction, home facilities and incentives, attitude of both teacher and pupil, the pupil's growth status and rate, and adjustments to individual differences; certain essential basic skills in word recognition, getting meanings, adapting reading rates, adapting understanding to purpose; and some instructional procedures.

GRAMBS, JEAN D. The Development of Lifetime Reading Habits. New York, American Book Publishers Council. September 1954. 38 p.

Report of Committee on Reading Development conference. Deals with means of expanding use of books in the schools, and of instilling life-long enthusiasm for reading. Offers interest promotion techniques such as reading aloud, bringing into classroom visitors who are enthusiastic

about reading, wider distribution of well-prepared book lists, more communication and cooperation between the public library and the public school.

GRAY, WILLIAM S. and LARRICK, NANCY. *Better Readers for Our Times*. International Reading Association Conference Proceedings, Vol. 1, 1956, 176 p.

• Reports proceedings of the 1956 conference, including talks by over 70 participants. Reviews the current demands for better readers, and describes how these demands may be met from the grades through college. Reports research on controversial issues and challenging problems, discussing at length "Can Television Aid in the Teaching of Reading?" Outlines ways of locating and meeting the needs of both retarded and gifted readers.

GREEN, ROSEMARY M. and HEAVEY, JEAN. *Reading Skills, Grades 10, 11, and 12*. Curriculum Office. Philadelphia Public Schools. May 1953, 26 p. Outlines reading skills essential to better learning, activities involved in establishing them, and possible educational outcomes resulting from their mastery. Covers helps for reading for main ideas, reading for details, outlining, locating information, vocabulary building, critical and oral reading.

HASTINGS STUDIES ITS SECONDARY READING PROGRAM. A Workshop Project. Nebraska, 1956. 32 p.

Reports progress and results of developmental reading program started in spring, 1951. Secondary school program stressed interpretation, critical reaction, integration, adjustment of reading to varied materials, and other skills not previously taught.

HELPS FOR TEACHERS IN PROMOTING IMPROVEMENT IN READING IN THE SENIOR HIGH SCHOOL. Ohio, Lakewood Public Schools, September 1953. 43 p. Concise and easy-to-follow helps set up in graphic form with the columns to the right of the pages containing specific materials illustrating the broader topics at the left. Includes suggestions for improving study, development and expansion of reading skills, critical reading, and the function of the school library in developing reading growth.

IMPROVEMENT OF READING IN SECONDARY SCHOOLS, THE. Texas. Texas Education Agency. Bulletin 540. March 1953. 63 p.

Written both for administrators and teachers. Lists and describes survey and group intelligence tests for use. Stresses development of mature reading abilities such as reading to draw conclusions and to make inferences. Presents sample plan of grouping within a class, scheduling activities for three groups. Enumerates principles necessary for the success of remedial reading. Lists available materials.

IMPROVEMENT OF READING IN THE HIGH SCHOOLS OF NEW MEXICO, THE. Tentative Guides for High School Teachers. New Mexico State Board of Education, Bulletin No. 17, 1953. 96 p.

Suggests a reading program for entire faculty. A feature of bulletin is "Tasks to be Done" at the close of each chapter. Tasks in the "Reading Process" chapter include: a. Review research; b. Plan a system-wide program for developing desirable interests in reading; c. Compile a resource unit of techniques and methods for developing and refining reading attitudes and interests.

IMPROVING READING INSTRUCTION IN THE SECONDARY SCHOOL. Bulletin of the California State Department of Education, Vol. 16, May 1947. 128 p.

Presents reading problems of specific subjects. For example, mathematics requires the "intensive, painstaking, and relatively slow type of reading where the reader is made aware of the slightest detail in words or symbols." Suggests appropriate devices and methods which may be adapted by any teacher to suit the needs of particular groups.

INSTRUCTIONAL GUIDE FOR THE TEACHING OF READING IMPROVEMENT. Junior and Senior High Schools, Los Angeles City School Districts. Division of Instructional Services. Publication No. 508, Revised 1954. 155 p.

A comprehensive instructional guide. Describes in detail the junior and senior high reading program, and outlines means and techniques of teaching reading improvement. Includes annotated list of books and materials for Grades 7-12 and for special training classes in Grades 10-12. Gives suggested list of library books for slow readers.

NORVELL, GEORGE W. Reading in the Secondary School Program. Reprint Bulletin 1185, April 1940. New York State Education Department, The University of the State of New York Press, 1952. 22 p.

Presents the essentials of a school-wide secondary reading program, recognizing the needs of two groups: retarded readers and normal readers.

ORGANIZATION AND ADMINISTRATION OF A READING PROGRAM, THE Kindergarten Through Grade 12. Wisconsin, Madison, Cooperative Educational Planning Program, Bulletin No. 16, May 1950. 23 p.

Suggests these procedures: List kinds of skills necessary for effective reading; select and administer appropriate diagnostic tests; outline most appropriate program for each pupil; organize classes into small groups and find appropriate materials for skill development exercises for each group; designate particular areas for which each teacher will assume responsibility; plan evaluation techniques to be applied frequently; interpret the reading program to the public.

PROMOTING GROWTH IN READING. A Teacher's Guide for Use in Secondary Schools. Oklahoma, Tulsa Public Schools, 1948. 190 p.

It is the business of the secondary schools to instruct not only to "read the lines" but "between the lines" and "beyond the lines." From this approach a reading program with specific practical procedures and techniques is built.

READING. Kindergarten Through High School, Teaching Guide. Washington, Longview Public Schools, 1954. 76 p.

This curriculum guide is organized around an adaptation of "Stages in Typical Reading Development" as described in the Forty-Eighth Yearbook, Part II, National Society for the Study of Education. In the Advanced Stages of Reading (Secondary School), the emphasis is on: refinement of reading attitudes, habits, and tastes; increasing efficiency in use of study skills; appreciation of literary heritage. Gives complete description of diagnosis and courses given in Grades 10, 11, and 12 for remedial readers in R. A. Long High School.

READING PROGRAM FOR THE PITTSBURGH HIGH SCHOOLS, A. A Guide Book for Teachers of Basic, Curricular, and Corrective Reading. Pennsylvania, Pittsburgh Board of Education, June 1945. 214 p.

Basic program tends to develop basic skills and abilities: recognition, comprehension, organization, retention, location, appreciation, and use of ideas. Curricular program lists materials: papers and magazines, workbooks and pamphlets, abridged classics and textbooks.

READING, THE KEY TO LEARNING. Massachusetts, Report of the Wellesley Public Schools, 1955. Pp. 6-27.

Written to provide more specific information on the reading program to the citizens of Wellesley. Describes program from preschool through high school. e

ROAD TO BETTER READING, THE. New York State Education Department, Bureau of Secondary Curriculum Development, 1953. 112 p.

Gives summary of proceedings of ten conference-clinics on reading in New York State. Sets up a developmental, twelve-year program. Presents a bibliography of materials and sources approved by teachers. Has chapter on improving reading in the content subjects.

TEACHING OF READING, THE, GRADES 4-12. West Virginia, State Department of Education, 1949. 336 p.

A practical guide which aims to promote understanding of the basic reading skills. Identifies reading difficulties, describes means of flexible grouping, lists current practices for better reading, and suggests enrichment materials.

TEACHING READING FOR THE GIFTED IN SECONDARY SCHOOLS. *The Bulletin* of the National Association of Secondary School Principals, Part I, 39: 5-73, October 1955.

Provides enrichment suggestions to the teacher. Helps offered in social studies, the sciences, language and literature. Stresses possibilities of paper-covered books for providing superior students with wide variety of reading matter.

B. Yearbooks on Reading

GRAY, WILLIAM S. Basic Instruction in Reading in Elementary and High Schools. Supplementary Educational Monograph No. 65. Illinois, The University of Chicago Press, October 1948. 237 p.

Discussions of role and patterns of basic reading instruction, grouping of pupils, reading readiness, environments that stimulate pupil growth, materials and equipment for basic instruction, the development of basic skills, and reading in content fields.

GRAY, WILLIAM S. and ROGERS, BERNICE. Maturity in Reading: Its Nature and Appraisal. Illinois, University of Chicago Press, 1956. 273 p.

Reports studies made with three different groups to determine the nature and development of maturity in reading. Maturity scales used cover three broad areas: (1) Interest in and purposes for reading (2) Material read (3) Level of reading competence. Provides high school and college teachers of English with information concerning the characteristics of mature, competent readers and ways of promoting their development.

GRAY, WILLIAM S. The Teaching of Reading and Writing. London. UNESCO and Evans Brothers, Limited, 1956. 283 p.

Book surveys and appraises current methods and practices in teaching both children and adults to read and write. Focuses attention on the mother tongues of under-developed areas of the world where literacy problems are most serious. Makes constructive proposals for leaders in literacy programs.

READING IN THE HIGH SCHOOL AND COLLEGE. The 47th Yearbook of the National Society for the Study of Education, Part II. Illinois, University of Chicago Press, 1948. 814 p.

Presents research and principles relating to developmental and remedial reading at junior high school and higher levels. Describes a sound reading program, how to identify needs of students, the teaching of reading in various content fields, helping retarded readers, making the library effective, and evaluating growth in reading.

ROBINSON, HELEN M. Oral Aspects of Reading. Supplementary Educational Monograph No. 82. Illinois, The University of Chicago Press, December 1955. 166 p.

Shows that oral reading is taught today as a useful and fine art. During and after school years the sharing of experiences, presentation of reports, reading of minutes and business reports, radio and television material, appreciation of poetry and other types of written materials depend upon oral reading. The two major aspects of oral reading include the reader and his ability to express the author's message, and the listener and his ability to receive.

C. Articles on Developmental Reading

BETTS, EMMETT A. ed. *Education*, 73: 523-88. Reading Number. May 1953. Presents research on reading interests of children in various communities; an experiment in teaching American history with primary emphasis on fictional literature; the status of reading in 1953; significant aspects being critical reading, study of semantics, and work with suffixes and prefixes; ways of reading to get the idea.

CURRICULUM AND MATERIALS. Board of Education, City of New York, Curriculum Center, 100 West 55th Street, New York 19, N. Y., Nov.-Dec. 1955.

Articles describe present reading practices and trends in the New York City system. A good program includes consideration of spots where pupils' needs are particularly acute: a. Grade 1, when the foundation of reading is laid. b. Grade 4, when reading in content subjects becomes more extensive and difficult. c. Grade 7, when children meet departmental work for the first time. d. Grades 9 and 10, when the transfer to high school requires greater responsibilities for one's reading.

GREGORY, M. and McLAUGHLIN, W. J. Advanced Reading for the Bright Child. *Clearing House*, 26: 208-05, December 1951. Describes miniature Great Books course for eighth and ninth graders with I. Q. of 120 or better, and A or B average, and a reading grade score of 10.5 or better. Groups of 20 volunteered to meet twice monthly with teachers during school hours for informal discussions. Students selected own books from special collection. No credit or formal reports given. Students and teachers were enthusiastic about results.

HERBERG, MAX (ed.). Reading Problems in the Secondary School. *The Bulletin of the National Association of Secondary School Principals*, Vol. 39: 7-55, September 1955. Discusses problems of non-literary reading materials (comic books), improving tastes in reading, and the need for cooperation between trade-book publishers and educators. Need for flexibility in rate of reading is brought out in description of a research study on skimming.

JEWETT, ARNO. Meeting Differences Differently. *National Education Association Journal*, 42: 270-71, May 1953. Describes how ninth-grade teacher was able to care for wide differences in reading ability and interests by knowing her students' reading tastes and the books which

they might enjoy. Describes how group work was planned and carried on.

KREIDLER, MARLOUISE. Guiding Reading Toward Desirable Effects in Grades Seven to Ten. Keeping Reading Programs Abreast of the Times, Gray, W. S. (ed.). Proceedings of the Annual Conference on Reading, Vol. 12: 188-92. Illinois, University of Chicago, 1950. Describes methods used to help eighth-graders improve family and other personal relationships. Teacher established rapport and developed permissive atmosphere, then asked open questions such as: "What do you like best about your parents?" and "In what ways do you wish they were different?" Then analyzed responses and listed understandings needed by pupils to establish satisfying parent-child relationship. Followed this by developing a reading list dealing with human relations. In connection with the selections read, the author used class discussion, observation of procedure during discussion, and role-playing, followed by evaluation of behavior.

LEIGHTY, V. E. How Slowly Do They Read? *The English Journal*, 45: 257-60, May 1956. Speed in itself can be a dubious advantage in reading. Justice cannot be done good material by a hurried reading or even by a single careful reading. The more one studies a work the more he finds in it to understand; without understanding, there can be no appreciation. Careful reading with students, discussions with them, and the use of library facilities teach them to read with pleasure.

LETTON, MILDRED C. Interpreting Different Kinds of Material in Grades Seven to Ten. Promoting Growth Toward Maturity in Interpreting What is Read, Gray, W. S. (ed.). Proceedings of the Annual Conference on Reading, Vol. 13: 101-05, Illinois, University of Chicago, 1951. Offers practical suggestions for teaching varied meanings of words and critical interpretation of printed materials to junior high students.

MCDOWELL, KYLE C. The Teaching of Reading in the Junior High School. *The Bulletin of the National Association of Secondary-School Principals*, 38: 36-39, December 1954.

Good teachers of reading: (1) offer a readiness program; (2) motivate students by varied means; (3) provide materials pupils can read successfully; (4) stress wide reading for recreation and information; (5) consider reading an all-day responsibility in all subjects; (6) help pupils gain independence in word recognition; (7) help build vocabulary constantly; and (8) help pupils develop comprehension skills through questions, conversation, and interesting workbooks.

MCGUINNESS, A. E. Reading Guidance in the Junior High School. *Wilson Library Bulletin*, 28: 682-85, April 1954.

Readers are divided into four groups: slow, indifferent, average, and non-reader. Suggests ways to attract all types of readers. Bibliotherapy is sound mental hygiene. Several examples are listed.

SMITH, DONALD E. P. Reading Improvement and Study Skills in Secondary Schools. (Speech). Michigan, University of Michigan, September 1953, 10 p.

Relating to study skills this point is made: Understanding is a first step in learning but not the whole process. The next step is remembering. Studies of reading only vs. reading plus reciting show a superiority of 40-50 percent for the second method.

WARREN, D. L. and GRAY, W. S. What Should We Do About Reading in the Junior High School? *The Bulletin of the National Association of Secondary-School Principals*, 40: 104-08, April 1956.

Two summaries of convention presentations. The first emphasizes that arrangements must be made to include the teaching of reading for all pupils in the junior high course of study. Interested teachers need to be secured, administration must give special attention to testing and grouping, in-service training should be given to teachers, and varied reading materials must be provided. The second discussion stresses that no other school unit faces a greater challenge for promoting growth in and through reading than the junior high school. Reasons: 1. Meeting the demands of adolescence is simplified through planned guidance. Efficient reading training can develop skills which lead to understanding, rational attitudes, and improved ways of thinking and behaving. 2. Extensive studies made in seventh grade classes show that reading competence varies from second grade level, or less, to that of college freshmen or more.

II. REMEDIAL READING

A. Guides for Remedial Reading

REMIATION AND SPECIAL READING SERVICES IN THE AUSTIN PUBLIC SCHOOLS. Texas, Austin Public Schools, 1952. 69 p.

Explicit guide for setting up a remedial reading program. Shows sample forms used in special reading program and materials to develop word attack skills. Contains bibliography for retarded readers, the books ranging in difficulty from primer and first grade through fifth grade, with interest levels from grades one through twelve.

A STUDY ON REMEDIAL READING: Grades 1-12. Illinois, Alton Community School Unit No. 11, 1952. 98 p.

Outlines a school-wide remedial program with instructional procedures for all levels. Recommends that junior and senior high school teachers continue the remedial program by selecting the grouping plan and using the reading aids best suited to class needs. Suggests that attention be given to the personal history sheets, charts, tests, and remedial material available.

SUGGESTED GUIDE FOR REMEDIAL READING. Secondary Schools. California: Fresno City Unified School District. September 1954. 48 p.

Gives aims of reading program; needs of the slow learner; suggested schedules; suggestions for dictionary, phonic, and vocabulary drills; speed and comprehension checks; and ideas for charts, games, and devices. Includes "Phonetic Elements for Remedial Reading" taken from Kottmeyer's Handbook for Remedial Reading.

B. Articles on Remedial Reading

BRINK, WILLIAM G. and WITTY, PAULA. "Current Practices in Remedial Reading in Secondary Schools." *The School Review*, 57: 269-68, May-June 1949.

Study of practices in remedial reading reported by 109 high schools. Median size of groups was 20. Most classes met regularly 5 days a week. In three-fourths of systems pupils given equivalent English.

credit. In over half of schools pupils could return to regular class when they showed sufficient improvement. In some schools, the school nurse, physician, psychologist, librarian, and director of guidance and testing service cooperated with remedial teacher. Varied criteria used for selecting students. About half of schools made remedial reading classroom into laboratory. Activities were aimed at extending and enriching experience, developing meaning, increasing speed, improving ability to evaluate printed materials, and developing good study habits. Authors state that if secondary schools initiated developmental reading programs, fewer remedial programs would be needed.

BRUNING, HERBERT I. The Readability, Interest, and Usefulness of Selected Materials for Retarded Readers, Grades 7-12. *Kansas University of Kansas Publications*, 10: 16-23. School of Education. November 1955. Study used twenty-six books including specially written materials, adapted classics, and textbooks or informational type materials. Ninety-two pupils in grades 7-12, screened by the Metropolitan Reading Test (advanced) Form T, participated. To determine the optimum difficulty of materials to be used by a large group, readability formulas were used to advantage. Study showed that teaching of reading and remediation of reading difficulties cannot be reserved to elementary school.

BURG, R. M. Book-Happy: Raising Reading Levels Two to Four Grades. *Clearing House*, 25: 341-44. February 1951.

Describes reading experiment with poor but promising readers in seventh grade of junior high school. Students placed in small reading improvement sections and given high-interest and easy-reading materials. Were taught word recognition, techniques of comprehension and other reading skills. Vocabulary study was emphasized and related to spelling. Were given many oral and written communication activities. Students were helped with adjustment problems through parental cooperation.

CAMPBELL, W. E. Reading Can Be Improved. *The Bulletin of the National Association of Secondary School Principals*, 40: 42-48. November 1956. Describes a secondary school reading program which resulted in a rise of 2.3 in the median grade level of ability among its pupils. Program started with in-service education. Teachers were supplied with needed materials and consultative help. Specific skills taught were: vocabulary development, adaptive rates of reading, effective oral reading, analytical thinking in reading, and reading for appreciation and pleasure.

CAPEHART, BERTIS E. and McKEEHAN, ROZLIN. A Junior High School Reading Program Adjusted to Individual Needs. *The High School Journal*, 33: 172-77. December 1955.

Laboratory program was organized in Jefferson Junior High School of Oak Ridge, Tenn. Since the Oak Ridge Schools use the K-5-3-4 plan, the emphasis during the first 8 years of school was on self-contained classroom. Junior high home-room teachers directed all academic learning experiences. Laboratory plan provided a place where help could be given to pupils on their ability levels. Pupils were placed in the "Needs Laboratories" if they were below grade level and data indicated need. "Interest Laboratories" provided broader experiences for those with improved reading levels.

CUSHMAN, C. LESLIE and GREEN, ROSEMARY M. Philadelphia Schools Attack the Reading Problem. *Nation's Schools*, 51: 52-55. May 1958.

Reports growth of reading program started in 1948 in 26 junior high, 17 senior high, and three vocational-technical schools in Philadelphia.

Teachers selected on volunteer basis and given systematic training on school time. Emphasis at beginning was on remedial work with small groups. Later, the program was extended to all regular classes. Continuing in-service education for remedial teachers was conducted. Results at end of fifth year were encouraging.

EINSTEIN, FLORENCE. Fostering Good Community Relations Through the Special Remedial Reading Program. *High Points*, 36: 31-34, May 1954. Explains letters-to-home plan of informing parents of reading program. Return-mail letters were displayed on bulletin boards and published. Used in a Manhattan junior high school.

MOHEL, ROSE. The Remedial Reading Program at J. H. S. 240. *High Points*, 35: 25-30, October 1953.

Remedial program functions as subdivision of Guidance Department. On entering junior high, pupils selected for groups on basis of teacher conferences and articulation card. Half-hour periods three times a week for groups of six are preferred. Pupils assigned to groups. Program explained to pupils who prepared own notebooks, individual folders, and progress charts. Remedial reading material integrated with that of core group. Instruction terminated when pupil attained reading level of grade seven. Follow-up materials were provided for subject teachers. Parents kept informed.

PARKER, DON H., KING, RENA and HOLD, RUTH A. Matching Ten Reading Levels in One Classroom. *Educational Leadership*, 11: 178-84, December 1953.

A ninth-grade English teacher found her pupils ranged from grade 3 through grade 13 in reading ability. With supervisory and consultant assistance, she instituted program which provided materials and help to each pupil at his own level.

PROPECK, GEORGE. Establishing A Junior High School Reading Improvement Program. *The National Elementary Principal*, 35: 224-26, September 1955.

Describes initial efforts of a junior high staff to organize to assist all students in reading.

RIDGWAY, ROBERT W. A Study of The Readability, Interest, and Usefulness of Materials for Retarded Readers in Grades 4-8. *University of Kansas Bulletin of Education*, 10: 10-15 November 1955.

Study used 118 retarded readers and 30 books from publishers' lists of materials written especially for retarded readers. Evidence collected indicated that the use of easy and interesting materials may result in improved attitudes toward reading. When interest in a book was high, pupils read above their measured reading levels. Low interest books often rated as "too hard" by pupils even though books were on or below pupil's reading level. Pupils who differ widely in mental and chronological age find interest in many of same books.

RYAN, EUNICE G. Reading Problems. *The Bulletin of the National Association of Secondary-School Principals*, 39: 127-32, November 1955.

Reports results of a remedial reading coaching program. The first year 22 seventh-grade pupils, average I. Q. of 99, and 11 eighth-graders, average I. Q. of 103, participated. Some pupils were coached 20 minutes a day, singly or in small groups; others were coached an hour at a time once or twice a week. After an average of 6 months' coaching the seventh-graders made an average gain of 2.7 years. The eighth-graders

made an average reading gain of 3 years after an average of 5 months' coaching. Special activities for bright pupils were highly successful: reading assignments and library research projects, acting as readers' guides to grade pupils, looking up resource material for teachers, studying reading techniques and helping coach younger children.

STRANO, RUTH. Illustrative Reading Programs. *High School Journal*, 36: 22-27, October 1952.

Gives five illustrations of efforts to help high school pupils improve reading: 1. English teacher gives help to several retarded readers. Builds on interests and needs of pupils, and enlists cooperation of other teachers. 2. English teacher meets needs of an entire class of retarded pupils. 3. Other teachers help students read their subject more effectively. 4. They coordinate their efforts to improve reading. Teachers try improvement techniques and share most successful procedures. Reading improvement is made a home-room goal. Librarian gives full assistance. 5. Program is under leadership of a reading specialist.

TRAXLER, ARTHUR E. Remedial Reading Today. *School Review*, 51: 17-24, January 1953.

A summary of current theory and practice in remedial reading in schools, with a statement concerning controversial questions and current needs in the field. Applicable to junior high school.

APPENDIX II

(NOTE: This form may be reproduced in whole or in part by anyone wishing to use it)

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Office of Education

Washington 25, D. C.

What Do You Like To Read?

Prepared by Arno Jewett, Specialist for Language Arts

I. *Reading at Home*

A. *Newspapers*

1. To which newspaper (s) does your family subscribe?

2. How much time do you spend a day reading newspapers?
minutes. -----
3. List your three favorite sections of the newspaper:
a. -----
b. -----
c. -----
4. What two news topics are you following closely?
a. -----
b. -----

B. *Magazines*

1. What magazines do you read regularly in your home?
a. ----- c. -----
b. ----- d. -----
2. Which magazine has the most interesting stories? -----
3. What subjects do you like to read about in magazines? -----

C. *Books*

1. Approximately how many novels and biographies are there in your library at home? -----
2. How many of these books have you read? -----
3. Are you or your parents members of a book club? -----
4. How many books do you own personally? -----

II. *Reading at the Public Library*

- A. Do you have a library card? -----; is it active? -----
- B. About how many books have you checked out of the public library in the past year? -----
- C. What magazines do you read at the public library? -----

- D. How many times a month do you go to the public library? -----

III. *Use of the School Library*

- A. Do you know how to find books you want without the librarian's help? -----
- B. What is the purpose of the *Reader's Guide*? -----

- C. For what is the card catalogue used? -----
- D. What encyclopedia do you refer to most often? -----
- E. Do you have difficulty finding certain things in the library? -----
If so, what? -----

IV. *Reading and Other Recreation*

- A. Write 1st, 2nd, and 3rd by your first, second, and third choices of these types of writing:

a. Novels -----	e. Articles -----
b. Short Stories -----	f. Comic Books -----
c. Plays -----	g. Biography -----
d. Poetry -----	h. News -----
- B. Write the titles of three books which you have enjoyed this year:
 - a. -----
 - b. -----
 - c. -----
- C. Write the title of the book you have enjoyed most of all. -----

- D. Underline the four kinds of stories you like best and put a check before your favorite. If possible, write the title of a favorite story after each type you underline.
 - a. Animal -----
 - b. Action and adventure -----
 - c. Ghost and other mysteries -----
 - d. Humor -----
 - e. Romance or love -----
 - f. Modern science -----
 - g. Outdoor life -----
 - h. Mechanical things -----
(airplanes, etc.)
 - i. Foreign countries -----
 - j. War stories -----
 - k. Space travel or fiction -----
 - l. Home life -----
 - m. Interesting people -----
- E. What do you like to do best when you have free time? -----
- F. What kind of work do you want to do when you leave school? -----

- G. What movies have you seen this month? -----
----- Have you read any books because of the movies you have seen? ----- If so, name them. -----

IV. *Reading and Other Recreation*—Continued

H. Whose recommendations do you usually follow when you read a book? _____

I. Do you have your own personal library at home? _____ If so, how many books? _____

J. Do you have a television set at home? _____ If you do, how much time do you spend daily watching television? _____ hours.

K. Have you read any books because of television shows you have seen? _____ If so, name them. _____

L. As you know, some young people like to read books during their spare time; others don't. Why do you think some teen-agers enjoy reading books when they have time? _____

Why do some young people dislike reading? _____

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