Techniques to aid the junior high teacher in assisting the slow learner

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TECHNIQUES TO AID
the
JUNIOR HIGH TEACHER
in
ASSISTING THE SLOW LEARNER

by

Paul L. Walker
B. E., Western Montana College of Education, 1932

Presented in partial fulfillment of the
requirements for the degree of
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1951

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Chairman of Board of Examiners

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Dean, Graduate School
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CHAPTER I

INTRODUCTION

The problem. That there are differences in abilities and accomplishments among students is recognized, but there is not enough done about it in the everyday instructional methods and techniques to help them. One of the big difficulties lies in the fact that teachers do not have the time (or take the time) to check up in various books and magazines to find ideas and techniques that could be applied to daily class work in order to help do a better job of teaching. The aim of this study will be to find various factors, methods, tools, and techniques for dealing with the slow learner so that the average teacher and principal may have a somewhat inclusive list of things to consider that may be put to use in aiding him. From these aids the teacher and the administrator can choose what they think will work best in their particular situation.

Need of the study. Numerous teachers have expressed the fact that they need and could use some compact source of information on this topic which would help the average teacher in the average classroom to help the slow learner. The writer has felt the same need and, therefore, this paper should be of some value.
Limitations of the study. This study will deal with the individual from the point of view of a realistic classroom situation rather than from a clinical standpoint. Few schools have the clinical facilities or the money to go into such a program. This paper will deal with information that will be of actual help to the average teacher in his or her every day classroom teaching in the junior high school particularly; however, a great deal of the material should be applicable to all grades in general.

The slow students on the whole make up about one-fifth to one-fourth of most heterogeneous groups. Below this, on the lower extremity of the scale, we have the feeble minded. They will not be included in this study as they require clinical considerations. Our educational systems and procedures have been built up largely on the basis of "the greatest good for the greatest number", so our schools at the present time are doing about the maximum for the average students who make up from fifty to sixty percent of the group. The remainder constitutes the gifted and the retarded individuals. This study will aim to help the retarded; the gifted could well be the subject of another study.

A challenge to the teaching profession. Dr. W. Carson Ryan in his book Mental Health Through Education says: "More of the boys and girls now in secondary schools will eventually
find their way into hospitals for mental diseases than into college. This should give all members of the teaching profession a challenge and they should endeavor to do all they can to prevent such a situation from ever materializing. Probably no one will contest the fact that most of the students Dr. Ryan was talking about would ordinarily evolve from the group of slow learners. It is not in the secondary schools where such persons begin to be retarded, nor is it in the junior high school, but many can be recognized and helped here, so that they will never become a burden to society. This is just another case of closing the gate before the stock gets out.

Children need to feel that they are accomplishing something, that they are getting ahead. If they do not have this feeling, they are frustrated and accomplishments drop more and more. If this state of frustration and despair continues too long, a seriously maladjusted individual is likely to be produced, and it is frequently difficult to tell when a pupil is in such a state. One is more likely to recognize the individual who, being frustrated, rebels as a result, and then can proceed to help him, but this does not help those who suppress their rebellion and just sit and brood over the situation.

Frequently, too, when teachers and parents realize a child is not getting ahead, they take the attitude that he will outgrow it — as if it were some sort of thing that he just must go through or put up with and make the most of on his own initiative. Here teachers are overlooking an opportunity to do something for an individual; but, when he is assisted in making whatever adjustment is possible, his teachers have made a lifelong friend as well as a better citizen and an asset to society.

Early help is important. In a great majority of cases, if these individuals could be assisted early enough, it would not require much time or help. However, when they undergo frustration over an extended period, the time involved and help required to make adjustments increases much as a geometrical progression. More could be done for more students if they could be "found" in time and adjustments begun before the maladjustment became too severe.

There is no one way, or method, or technique, that can be applied to all individuals to locate a difficulty any more than there is a single method or technique whereby adjustment can be brought about in all children. Children vary greatly in many ways. There are many factors individually as well as in combination which act and react to make people different one from another. Also, it is amazing how much children can undergo and come through reasonably well adjusted. However, this is no good reason why they should be thrown on their own
to make their adjustments. This statement could be used as an argument for not giving up hope on what might appear, temporarily, as a hopeless case.

"With all our attention to practices for meeting individual differences among pupils, one fact remains: the junior high school today still fails to meet satisfactorily the needs, abilities, and interests of individual boys and girls." 1

CHAPTER II

THE INTELLIGENCE QUOTIENT

What the intelligence quotient is. It seems appropriate at the beginning of such a study to mention briefly a few facts about intelligence quotients as we cannot make the study without using the term or without considering what it means on the individual's record.

Terman introduced the use of the term intelligence quotient (I.Q.) into American intelligence testing results. He took the idea from William Stern, a German psychologist, who suggested its use as early as 1912. The I.Q. was devised to show the individual's standing in relation to his mental age and his chronological age and is found by dividing the M.A. by the C.A.

Thus: \[ I.Q. = \frac{M.A.}{C.A.} \]

If a pupil has a mental age of nine years and he is ten years old, his I.Q. is 90. An I.Q. of from 90 to 110 is usually considered normal.

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The M. A. has become the standard means of comparing children whether of different or the same chronological ages. So far as our measuring instruments have been developed, it is the best means available of comparing a ten year old with a twelve year old. Suppose both had M. A.'s of 10, then both would be of comparable equal intelligence as far as we are able to measure. However, it must be remembered that this instrument is not infallible. If mental ages are used to compare a ten year old and a twelve year old, and their mental ages are equal, then the younger one has used only ten years to acquire the same mental age as the older one has needed twelve years to attain. To do so, the younger child has necessarily had to be more intelligent.

Gradations of intelligence. Freeman lists the intelligence quotients as follows:

<table>
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<th>I. Q.</th>
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<tr>
<td>0 - 24</td>
<td>Idiot</td>
</tr>
<tr>
<td>25 - 49</td>
<td>Imbecile</td>
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<tr>
<td>50 - 69</td>
<td>Moron</td>
</tr>
<tr>
<td>70 - 79</td>
<td>Borderline</td>
</tr>
<tr>
<td>80 - 89</td>
<td>Dull or Backward</td>
</tr>
<tr>
<td>90 - 109</td>
<td>Normal</td>
</tr>
<tr>
<td>110 - 119</td>
<td>Superior</td>
</tr>
<tr>
<td>120 - 139</td>
<td>Very Superior</td>
</tr>
<tr>
<td>140 and up.</td>
<td>Near &quot;Genius&quot; or &quot;Genius&quot;</td>
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Reliability of I. Q. When dealing with I. Q.'s it must always be remembered that an I. Q. from a single test is not a reliable measure; but, if the same or nearly the same I. Q. is obtained from three or four tests, then this figure is considered a reasonable measure of the individual's abilities.

Tests of mental ability. Some of the outstanding mental ability tests which have been devised and standardized are: Primary Mental Ability Tests, Kuhlman-Andersson Intelligence Tests, and Otis Quick-Scoring Test of Mental Ability. These tests are relatively easy to administer by the average teacher. They come with specific instructions which should be read and studied before administering the tests, and upon administering them these directions should be followed quite carefully in order for the results to be compared to the norms which are set up. If directions and instructions are not followed, one might just as well not give the tests.

As stated in the introduction, this study was not to be too clinical in nature and for this reason the clinical tests for mental ability have not been included.

About one-third of our population have I. Q.'s from 95 to 105, one-fifth from 85 to 95, one-tenth between 70 and 85, and one one-hundredth less than 70. Also as this study is not of a clinical nature and the individuals with I. Q.'s

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below 70 are not frequently found in the classroom, the writer is mostly concerned with the students above the moron level of intelligence.

Fallacies regarding intelligence. Baker\(^1\) lists a collection of fallacies about general intelligence and gives the current educational opinions regarding them. They are listed here as they were formerly believed, yet there are some people who still believe in them.

1. A physically active child is also mentally active.
2. The person who talks a great deal or uses big words and high-sounding phrases is of high intellect.
3. Physical characteristics such as the sparkle of the eye, shape of the ears, height of the forehead, firmness of chin, lines of the face, etc. were supposed to have certain significance.

The actual truth of these statements has been scientifically determined as follows:

1. Actually feeble minded children are sometimes outstandingly active physically.
2. The best test for the person who uses high-sounding words and phrases is to check up on his accuracy and consistency of use of such.
3. Carefully controlled experiments have definitely proven that these characteristics are no more typical of feeble minded than of superior individuals or vice versa.

The best method to date of determining natural ability is through the use of valid mental ability tests.

\(^1\) Harry J. Baker, Characteristic Differences in Bright and Dull Pupils, (Bloomington, Ill.: Public School Publishing Company, 1927), pp. 8 - 11.
Misuse of I.Q.'s. All too frequently teachers make a gross misuse of the I. Q.'s they find on accumulated records of students. The writer has actually seen teachers during the first few weeks of school in the fall look up I. Q.'s and record them in grade books in terms of scholastic marks (A, B, C, etc.), using a graduated scale they had prepared for that use. Such a practice as this is highly inexcusable and certainly reflects upon the training and capabilities of a teacher.

A low I. Q. for a pupil indicates that pupil needs to have material presented in short, simple units that he can comprehend and accomplish, rather than an assignment that he cannot begin to come near completing.
CHAPTER III

RECOGNITION OF DEFICIENCIES

Types of reading deficiencies. In reading, deficiencies may be classified as rate and comprehension, and numerous factors influence both of these. Causes of slow reading can be traced to the following:

- inadequate vocabulary
- lack of interest
- purpose for reading
- excessive head movement
- narrow eye span
- inaccurate return of the eye to the next line
- regressive movements
- whispering to himself as he reads
- pointing to words as he reads
- defective vision
- speech defects
- interpretation of meaning
- defective hearing
- inferiority complex

Causes of poor comprehension may be some of the same as listed above in addition to others. They are:

- inadequate vocabulary
- lack of interest
- defective vision
- mental ability
- narrow reading interests

Too much emphasis on oral reading in the lower grades may affect silent reading in the upper grades. This is true when it results in the individual's reading a word at a time instead of a group of words which is extremely important for effective silent reading. Also it is true when the student gets to the point where he is reading words, enunciating well, but does not understand what he is reading. He has learned
to read orally in one sense, at least, but of what value is it to him as an individual who is going to have to do practically all of his reading silently as he studies from here on through the remainder of his school days? Various studies that have been made show that the fast silent reader usually comprehends more of what he has read.

**Deficiencies in arithmetic.** In arithmetic the deficiencies may be listed as arithmetic reasoning and computation. Under the heading reasoning comes the inability to read problems and determine what is to be done. This is ordinarily a deficiency in reading comprehension. Under computation deficiencies it is found that the student lacks skill in fundamental operations. He may know which operation to use, but makes too many errors so that in spite of adding where he should add, etc., he comes out with the wrong answer. Also included here is the student who is unable to solve problems because he cannot determine the process to use, much less apply it.

**Deficiencies in language skills.** In language skills the deficiencies fall into more categories such as:

- usage
- capitalization
- punctuation
- sentence sense
- spelling
Means of recognizing deficiencies. In order to recognize retardation in these areas several things must be considered. One is the results of the students on the various standardized tests which are generally divided into sections. In reading, the sections are vocabulary, rate, and comprehension. In language skills, punctuation, capitalization, usage, spelling, and sentence sense are the usual divisions, and in arithmetic the two common sections are reasoning and comprehension.

The above results analyzed in conjunction with information to be found on the pupil’s cumulative records and school performance should be all that is necessary to show up a child as needing help.

The standardized tests will indicate the general field in which the student needs help, as a low score in any section of the test is ordinarily such an indication. Then it is the duty of the teacher to study and analyze this area further to determine specific functions which need improving. In arithmetic for example: If the student’s score is low in computation, it is relatively easy to look at the problems and determine in which of the processes he has made an outstanding number of errors. If only one process has been badly abused, the teacher’s work will be relatively easier than if a combination of processes are involved. If the student is deficient nearly equally in all processes of arithmetic, then he will require help more nearly of the caliber one would give a student in the grade level in which this test places him.
However, his age should be given some consideration. He will not respond to the same psychological approach one might use on a younger pupil.

Analyzing some of the other situations may require a little more time and skill on the part of the teacher.

**Inconsistency of a pupil.** If the standardized test shows a computation deficiency and the student's daily work and class tests do not show this deficiency, then the cause might well be pursued because it may show up as a handicap elsewhere. If the cause turns out to be an upset stomach or something similar, then it should be noted on the cumulative record as such. Should this same symptom show on the cumulative record a number of times, the home room teacher or school counsellor ought to look into the situation. All too frequently the classroom teacher does not carry the investigation far enough or does not take the time to note the findings on the cumulative record. As a consequence, an important opportunity is lost whereby an individual could be helped.

**Limits to progress.** It must be remembered, too, that if the mental ability tests the individual has taken show him to have a low I. Q., there are certain limits, therefore, in regard to how much progress can be made with him. However, if he has the mental ability and is deficient in any of the aforementioned phases, he should be able to make much progress.
Part of the cumulative record should be a graph of the student's achievement year after year as determined by standardized tests. If these graphs are all on the same sheet, they will show where deficiencies are continual, where they are being gradually overcome, and where they are increasing.

In remedial work, it must be remembered that first it is important to find out just where the difficulty lies. Then the teacher must work to overcome the wrong method, which may have become quite well "fixed" in the pupil's mind, by explaining in detail and with examples the correct method of procedure. Frequently much repetition is necessary before success is attained.
CHAPTER IV

CORRECTIVE READING

Reading, a major tool. The ability to read and understand what is read is so very vital in many life situations that it is one of the first areas to consider in helping to improve abilities, particularly of the students who range in the lower half of most classroom groups. Many teachers could do more and better work in less time if they had been given suitable attention in respect to reading abilities at the right time. Those who can see this are the ones who should promote an improved program in this field.

Every child does not get an equal amount of good out of the same teaching situation, consequently the teaching situations have to vary considerably. The more students in the class, the more variation is required in teaching situations. On the other hand, the more students in the class, the less time there is for variations. This is an important argument for having fewer students in classes, and, as time progresses, it can reasonably be expected that classes will be diminished in size.

Some aspects of corrective reading. In order to improve his reading abilities, a child must do considerable reading on his reading level. Frequently a child is deficient in reading because he does not care to read, then again there is
the one who is not interested in reading because he is deficient. The problem in either case is to find a way to create interest in wanting to read. At this point, the cumulative records should be of some value if someone has recorded the child's interests, likes, and dislikes. Knowing these, one should not have much trouble finding some reading material that will fit his needs which are based upon interests and the grade level as measured by the standardized tests he has taken. If the tests place him at the fifth grade level, corrective reading should begin at the fourth grade level so as to be sure it is easy enough for him. After finding something which the teacher feels will be interesting to the pupil, the next step is to do all possible in the line of motivation to make the child want to read it. It should be as attractive as possible with pictures frequent enough to help retain interest. The teacher should not work the child to the point of fatigue but should try to vary the material as much as seems prudent with the circumstances of the case.

**Factors causing retardation.** Frequent changing from one school to another is a factor which can affect both rate and comprehension. As the pupil's adjustment is taking place, his progress in learning is retarded, and the more often this takes place, the further retarded he becomes in his learning processes.

In departmentalized junior high schools the change in organization of the schools from the one teacher situation
to the multiple teacher situation may be a factor in causing retardation as adjustment must take place upon entering the differently organised institution.

The method of attack upon these deficiencies must be adjusted to the experiences, needs, interests, attitudes, and mental abilities of the student. Frequently considerable help is needed from the teacher to get across the idea of analyzing what is read to get the important points rather than reading and rereading to remember as much as possible of what is read.

**Basic sight vocabulary.** It is most important that the retarded reader have a basic sight vocabulary and this is most easily and most rapidly built up with the use of flash cards. By the time the pupil has reached the junior high, it is rather difficult to get him to use the flash cards, particularly at school. It may be possible to get the parents to assist him at home. If so, the teacher should spend a few minutes showing the parents how the cards should be used and explaining that the child is supposed to recognize the word as a whole at a glance and is not to spell the word or any part of it. The whole process should be conducted in the form of a game, the child endeavoring to see how many words he can recognize. With the flash cards the child can see his improvement much better than he can with reading a story or a book and consequently, he is that much better encouraged.

The pupil must recognize most of the words in a selec-
tion before he can read it and get any meaning from it. He may be able to guess a few of the words, but when he must guess at too many, he loses the thought. Once he builds up a basic sight vocabulary to the point where he recognizes most of the words at a glance, he can help himself considerably by sounding out words. He should also be able to figure out the meanings of some of the words by comparison to other words that he does know and from the general meaning of the sentence as well as paragraph in which the word is found. Speed of recognition of words is very important, for if he is too slow at it, he loses the thought while he is trying to figure out the words. Speedy recognition aids comprehension.

**Synonyms, antonyms, homonyms.** A very important technique for learning words and their meanings is to play games with synonyms, antonyms, and homonyms. This can take the form of the old fashioned "spell down" where the group chooses two captains who in turn choose sides so that half the group is lined up against the other half. If one is working with synonyms, the captain of one side begins with a word and the opposing side must supply a synonym, spell it, and use it in a sentence. The teacher is the referee and can find numerous good teaching situations in the explanation of errors. The same type of game can be played with antonyms and homonyms.

Another version of this, and probably a better one in some respects, is to have all prepared with paper and pencil so that when a captain gives a word, all the opposing side
write the synonym in a sentence. After each captain in turn
gives a predetermined number of words, the side that has the
most right wins. This gives actual practice in writing sen-
tences, while with the former game more words are covered
orally. Both have their place in learning to know and spell
new words.

**Word meaning as a part of corrective reading.** An im-
portant part of corrective reading is practice on word mean-
ing. In the English language we have many words which are
somewhat unique in regard to having multiple meanings. As
these words are found in class work, they should be explained
in detail and used in a number of sentences so that the chil-
dren will understand them. Then they should be used by the
children in sentences of their own origin. A typical example
is the word host. The meanings -- (1) a person who receives
a guest, and, (2) a number of, or multitude -- should be
discussed and the word used in sentences by the teacher.
Then the children should try to use it in sentences as they
may have heard it used previously and finally as they think
it should be used. All misuses during this time should be
carefully explained. When the word comes up again later,
call attention to it and its meanings, again using it in a
few sentences. Children should be encouraged to use new words
as much as possible in their daily work. Ask them if they
have tried using new words at home and what results they have
had with them.
It is very important that the dull pupil know the meaning of words which he tries to use. H. J. Baker\(^1\) refers to a boy who interrupted a class discussion on the Alps several times to ask about the Scandanavian countries. When the class and teacher became annoyed sufficiently to investigate the reason for his questions, it was found that he just liked the sound of the word and wanted to use it. All the time he thought he was using it properly. Be as tactful as possible in these situations as improper handling of them frequently results in the pupil's embarrassment and losing interest in trying out new words.

**A phonics plan.** Numerous phonics plans have been used but a good plan combining some of the best features is described by E. W. Dolch\(^2\) using thirteen steps.

1. Single consonant sounds.
2. Consonant digraphs.
3. Short sounds of vowels.
4. Long sounds of vowels.
5. Final \(e\) rule.
6. Double vowels.
7. Diphthongs.
8. Vowel followed by \(r\).
9. Soft \(c\) and \(g\).
10. Prefixes or suffixes.
11. Number of syllables.
12. Division into syllables.
13. Open or closed syllables.

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The explanations of the thirteen steps follow: (1) The first thing to learn is the single consonant sounds as they usually begin words.  (2) When a word begins with several different consonants such as sh, th, wh, and oh which have a single sound, this is a consonant digraph.  (3) When a word begins with a consonant followed by a vowel, the vowel is usually short.  (4) When a vowel has a sound like the name of its letter, it is the long sound.  (5) When a word ends in e, the preceding vowel is long.  (6) To pronounce two vowels which come together, make the first one long and the second one short unless they are (7) diphthongs such as ou as in house, oi as in noise, and ea in eat. These are pronounced as one speech sound.  (8) Words like jar, per, fir, nor, and bur where r follows a vowel require a different pronunciation for that vowel.  (9) e and g when followed by e and i have a soft sound. Example: decide in comparison to decals; age in comparison to again.  

(10) Remove prefixes and suffixes from the remainder of the word as they largely have their own pronunciation, and frequently, when they are removed, the remainder of the word is familiar to the student. A study of prefixes and suffixes might well start with the word prefix with the teacher explaining it, then asking pupils to contribute other words to be explained. A starting list might be left on the board for several days. It might be similar to the following:
Dictionaries are a great help in teaching prefixes and suffixes and in corrective work it is well to stay rather close to the ones where the student can understand the root word. Let the students watch for words containing prefixes and suffixes in their daily work. Do not try to make a complete list of them as they become involving for the slow learners.

(11) Syllabication follows the removal of prefixes and suffixes so that the root word is divided into as many syllables as there are vowels excepting that final e is not counted and two vowels together, whether the same vowel or a diphthong, count as one. After determining the number of syllables look for a vowel - consonant - consonant - vowel pattern and a vowel - consonant - vowel pattern.

(12) Division in the former pattern comes between the two consonants; in the latter, before the consonant.

Examples: absolute(ly) enormous (dis)appear

ab so lute (ly is a suffix)
 e nor mous
 ap pear (dis is a prefix)
(13) If a syllable ends with a consonant, it is a closed syllable and the vowel within it is short. If the syllable ends with a vowel, it is an open syllable, and the vowel is ordinarily given the long sound. There are exceptions to the latter. However, this procedure will be close enough to enable the student to determine the word.

One of the important factors in using this plan is to progress numerically through the various steps. In the junior high the pupils may have some knowledge of phonics; if so, the teacher could continue from a higher step than could be done in the lower grades. Unless the student is considerably retarded, the junior high teacher should be able to start out with the sounding out of long words or polysyllables rather than with short words or monosyllables. The teacher will have to determine the starting point in regard to the present background of the student.

Context clues. In some instances it is possible to understand the meaning of a new word from the context in which it is found. William Kottmeyer says: "Accurate word meaning guesses from context are not so common as is generally supposed." Ordinarily a retarded junior high school reader has had ample time to have learned words by that method, and the fact that

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he is retarded is definitely evidence that he needs a better method of word recognition or at least further assistance along with the context method.

**Reading games.** The following reading games may be used to improve both rate and comprehension: 1. Supply minor ideas in an outline which lists the major ideas. 2. Select the statement which best summarizes a paragraph. 3. List topics in the order in which they are found in the story. 4. Supply major topics in an outline in which minor ideas are given. 5. Matching headlines or topics with paragraphs. 6. Writing original headlines or topics for paragraphs. The teacher can choose material which is suitable for the child from a grade level point of view as well as something which is apt to be interesting to him. The outlines should not be too long or detailed. The outlines, statements, headlines, etc. can be worked out by the teacher and kept for future use. The writer knows of a teacher who made and used quite a variety of these to good advantage. Some were prepared on various books in the classroom and some were prepared from stories from Ditto workbooks used for lower grades.

**The importance of silent reading.** The primary function of oral reading in the lower grades is for children to hear the words while seeing them at the same time. This procedure gives all the children in the class practice in word recognition while one is reading and it gives the teacher
positive knowledge that words are being recognized and pronounced properly. This technique is valuable while pupils are building up their vocabularies rapidly, and as soon as they can recognize the words as rapidly as they can pronounce them, silent reading should begin. If the pupil is forced to read orally when he can recognize the words faster than he can pronounce them, then the result is a retardation of his reading rate. Too much retardation at this point may seriously impair his reading rate for the remainder of his life unless he is found and given corrective treatment. If a child is forced to read orally when he could be reading faster silently, it is also possible that he may get the impression that it is more important to read orally and such an impression when once formed becomes difficult to change. The impression may even take the extreme form of thinking that the proper sounding of the words is the ultimate purpose of reading. The aim of the reading program in school certainly is not to prepare all students to be good oral readers. However, this statement is not to be misconstrued to mean that there is no place in the world for good oral readers. There are numerous uses for oral reading, but for the average individual, silent reading is much more essential to his progress in school and in later life.

Oral reading is just one step in the ladder of progress of the pupil. With it the teacher can be sure the pupil is recognizing the words; with silent reading at this stage, the teacher would have no way of knowing whether the child did
recognize new words. Gradually the pupil learns to pronounce new words by sounding them out, and by this time he can recognize words as fast, if not faster than he can read them orally. Charles H. Judd\(^1\) has worked out a graph to show this and one finds here that at about the fourth grade level the rate of recognition catches up to and passes the rate of articulation. From there on silent reading should be the rule and oral reading the exception for most school work.

Figure 1. Improvement in rate of articulation and in rate of recognition of printed words in successive grades. The full drawn line represents the rate of articulation. The broken line represents the rate of recognition of words.

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The objectors to silent reading say that students must learn to enunciate as well as continue to learn new words. The answer to this is that all teachers -- arithmetic, social studies, science, etc. -- should join in helping the student with these. Certainly the student is going to find new words in these different classes. Is he then to wait to learn to pronounce them and to learn their meanings until he returns to a reading class? No! It is the duty of all teachers to make the most of this teaching opportunity.

**Oral versus silent reading.** Again the writer wishes to make it clear that he does not propose to dispense with all oral reading. There are many places where oral reading is not only desirable but necessary in various phases of our lives. There are many times when one wishes to read an excerpt from an article to a member of the family, or a friend. There are times when it is highly desirable to read to one who is ill, there are occasional reports one wishes to read to another, much radio work requires good oral reading with enunciation, emphasis, proper pronunciation, and even syllabification. These are some of the uses for which we need oral reading.

The student should have both, but as his scholastic needs during the next ten years or more are of primary importance, and since this need is best served by silent reading, it is of profound importance that he master the art of silent reading to the best of his ability.
A correlative technique. A valuable technique using My Weekly Reader series is explained by Genevieve Anderson¹ in which she had a group of five children within a regular group who were one year retarded in their reading abilities. She found they were interested in ships so, after proper motivation, she started them reading material in My Weekly Reader one year lower than their retarded level in order that they would have material that they could read independently. This reading was followed by a discussion after which they read the next higher grade level of My Weekly Reader which contained further information relative to the same subject and required more supervision by the teacher. Further discussion, including explanations of new words, was followed by further reading in the next higher level of My Weekly Reader. This time they were reading in the same issue as the remainder of the class, which gave them a great deal of satisfaction.

The first reading had given them some of the basic ideas and words; then they added a little more to that from the second and still more from the third level of reading, learning new ideas and new words as they went. The ability to read and to understand the same material that the rest of the class was using was an achievement for this group of five students and they were proud of it. Further pursuance of the

¹ Genevieve Anderson, Adjusting Reading Programs to Individuals (Supplementary Educational Monographs, No. 82 Oct., 1941, Chicago: University of Chicago), pp. 145-6.
same type of remedial work would produce added improvement in reading abilities as long as the children could see that they were making progress.

Remedial work could be conducted in social studies classes on the same basis as the above program, using books of varying difficulty on the same general subject under discussion. This could well serve two functions then, the first being that the student would gain desired knowledge upon the subject and second, he could improve his reading techniques at the same time.

Forestalling the question of what to do with the remainder of the group, what could be more appropriate than having them working at their own levels of ability, bringing in supplementary things on a more advanced level.

**Phrase reading.** It is important for the student to begin early in his school life to read phrases with one fixation of the eyes rather than to continue to read words. It is difficult for the student to get the meaning when reading remains the mastery of one word after another, and to the listener, it sound much like calling off a list of spelling words. The mastery of phrase reading leads to the mastery of larger units which is an extremely valuable skill for any person to possess as it enables him to read so much more in any given time. Also, there is some evidence that the fast reader remembers more of what he has read.
In order to learn phrase reading, the pupil must learn to see words in groups. There are numerous devices for helping to establish this practice such as the tachistoscope which Kottmeyer\(^1\) has diagrammed and which is easily made. It consists of a sheet of cardboard with a slot in it near the top three inches long and three-eighths of an inch wide. The cardboard covers a sheet of paper upon which are typed the phrases to be used for practice. As this sheet is pulled upward, it exposes one phrase at a time for the pupil. If a short, interesting story is typed in phrases on the paper, it is of more interest and value to the pupil. Such sheets of story phrases should be kept on file for use year after year.

A simple form of this idea is to use a piece of paper to cover lines already read and slide it gradually down over the page at a rate that will force the student to read a little more rapidly. The paper could have a slot cut into it to expose less of the text, for a further variation.

Another method of teaching phrase reading is to mark off the phrases in a book for the student so he will know what is meant by "phrase"; and, after some practice, he will be able to mark some for himself. After a little more practice, he will not need the phrases marked, but will read them directly.

\(^{1}\) Kottmeyer, \textit{op. cit.}, p. 105.
The following tachistoscope can be made from an 8½" x 11" piece of cardboard from the back of a tablet:

![Diagram of tachistoscope]

The Phrase Sheet

Place phrases here for the children to read through the opening.

![Phrase sheet diagram]
Reading interests of students. In determining the reading interests of retarded readers, Witty and Kopel found that of two hundred fifty books recently read by students only thirteen were read by more than one individual, while only one of these thirteen was read by more than two. That book was Robinson Crusoe. Terman and Lima include this book in the following list of the twenty books most liked by boys:

# 1. Treasure Island
# 2. Call of the Wild
# 3. Tom Sawyer
# 4. Robinson Crusoe
# 5. Three Musketeers
# 6. Ivanhoe
# 7. Huckleberry Finn
# 8. Penrod
# 9. Sherlock Holmes
#10. Kidnapped
#11. Black Beauty
#12. Swiss Family Robinson
#13. Connecticut Yankee
#14. Tale of Two Cities
#15. Count of Monte Cristo
#16. Penrod and Sam
#17. White Fang
#18. Last of the Mohicans
#19. Jungle Books
#20. Oliver Twist

The Corresponding list of twenty books most liked by girls follows:

1. *Little Women* Alcott
2. *Anne of Green Gables* Montgomery
3. *Ivanhoe* Scott
4. *Little Men* Alcott
5. *Treasure Island* Stevenson
6. *Laddie* G. S. Porter
7. *Three Musketeers* Dumas
8. *Alice in Wonderland* Carroll
9. *Heidi* Spyri
10. *Pollyanna* E. Porter
11. *Secret Garden* Burnett
12. *Rebecca of Sunnybrook Farm* Wigginn
13. *David Copperfield* Dickens
14. *Little Lord Fauntleroy* Burnett
15. *Call of the Wild* Jack London
16. *Right Cousins* Alcott
17. *Freckles* G. S. Porter
18. *Little Minister* Barrie
19. *Tale of Two Cities* Dickens
20. *Uncle Tom’s Cabin* Stowe

These lists were compiled from titles given by 1,827 children who were asked to list four or five books which they had most enjoyed reading during the last year. The asterisks point out books which are common to both lists. As these books represent children's interests, they should be of some value in getting more students to read at home; which, of course, is one way of encouraging children to improve their reading abilities.
CHAPTER V

CORRECTIVE ARITHMETIC

Reading and interpreting directions. One of the first factors to consider in corrective arithmetic is the meaning of the signs and interpreting directions given. Plenty of drill should be given on the signs $+$, $-$, $\times$, and $\div$ and stress should be laid on the careful consideration of their meanings. Also it is well to have some work sheets with problems under headings of Addition, Subtraction, Division, and Multiplication. It is best if all the addition is not in one place and all the multiplication in another, but the teacher should have the problems mixed, remembering that this is practice on interpreting directions more than in actual working of problems. However, the problems must be checked for accuracy and returned to the children. The teacher might well have other work sheets, too, where the directions are given by signs only.

Most teachers have checked papers which had a row of problems with the heading, "Subtraction", yet the child multiplied, probably on the basis of insufficient practice in the type of problem along with the manner of giving instructions, and because the problems looked to the child most like what he had had in multiplication.

For Example: Subtraction:

\[
\begin{array}{cccccc}
18 & 24 & 40 & 56 & 33 \\
4 & 6 & 9 & 7 & 8 \\
\end{array}
\]
This method of arranging problems is used extensively on achievement tests and on intelligence tests; consequently it is important, in order for one to get an accurate check on the student's capacities and abilities, for him to follow the proper instructions.

**Analyze the difficulty.** Frequently after analysis the child can be shown that he has been making the same type of mistake over and over again while all along he has been thinking he has been making innumerable types of mistakes. It usually seems to him much worse than it actually is. While he is in the frame of mind that he has been making many types of mistakes, he is not yet ready for the actual remedial assistance, but as soon as he can be shown that it isn't as bad as he thinks, he is relieved of much mental tension that accompanies his situation and the difficulty may be mastered more rapidly.

**Supply properties to manipulate.** Occasionally the student can help improve his number concept with the aid of properties, such as toothpicks, that he can manipulate. These he can place on the table in groups or tie into bundles so as to add interest to what he is doing. Here, then, he is working with actual things rather than abstract numbers and he can see more reason in what is to be done. Many other objects are likewise usable, and best results are obtained when the child...
is working with something he particularly likes such as shells, pebbles, marbles, etc. This idea works well for learning the combinations and for multiplying small numbers.

Show the pupil where he errs. Analyse the child's errors while he watches and point out to him the exact place where an addition, or subtraction, or multiplication, or division is incorrect. Have him write down that particular part as a simple problem in itself, and when you have done this for the eight or ten problems that he has missed, analyse these for the commonest types of errors he is making. Now give him a few simple problems involving the same type of process or processes — including these that he has copied from his errors — and let him go to work with his shells or toothpicks. Also show him that the larger problems are just combinations of the simple problems he has been working on with his shells, and that once he can master the simple ones, the others are just a combination of several simple problems into a single larger one.

An illustration of this point with examples follows:

Take five multiplication problems that John has missed.

\[
\begin{align*}
27 & \times 56 & 14 & \times 75 & 92 \\
15 & \times 46 & 52 & \times 55 & 65 \\
38 & \times 112 & 12 & \times 585 & 376 \\
27 & \times 223 & 78 & \times 219 & 726 \\
305 & \times 2345 & 764 & \times 2045 & 8098
\end{align*}
\]

In analysing these with John, it is obvious that he does not know his multiplication tables and needs more prac-
tice in the kind of problem using them. Give him some of the simple ones involving numbers up to $9 \times 9$ and let him go to work with his shells, using suitable motivation, of course, to keep him interested. Once he has lost interest, he will not accomplish desired results. Also, stop him before he reaches the state of fatigue. Show him, too, that he missed the fourth problem merely because he forgot to carry one and add it to his second product. Praise him for having multiplied correctly all the way through that problem and at the same time praise him for the other problems which he did correctly and show him that the situation is not entirely hopeless nor as bad as he may think it is.

_Further practice is necessary._ After analyzing these five problems one has four simple problems in multiplication. They are:

\[
\begin{array}{cccc}
7 & 6 & 4 & 9 \\
\times 3 & \times 4 & \times 5 & \times 6 \\
\end{array}
\]

These should be included in the problems he is practicing upon with his shells. Also if you can find that he has correctly done the inversions of these, you can quickly bolster "morale" by showing him that he already does know them, really, but has not recognized them. It is very gratifying to see the light in a pupil's eyes when he realizes that $5 \times 4$ is the same as $4 \times 5$. 

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Analyzing long division errors. The following are the first five of the long division problems that John missed, showing the errors as he made them:

\[
\begin{array}{cccccc}
4/516 & 5/762 & 8/712 & 9/625 & 15/4728 \\
26 & 3 & 6 & 6 & 36 \\
24 & 25 & 64 & 78 & 72 \\
24 & 36 & 78 & 78 & 78 \\
24 & 36 & 78 & 78 & 78
\end{array}
\]

Analysis of them reveals an error in subtraction in each problem. These errors reduced to simple problems are:

\[
\begin{array}{cccccc}
31 & 29 & 71 & 68 & 62 \\
\end{array}
\]

Try reducing these still further to:

\[
\begin{array}{cccccc}
11 & 9 & 11 & 12 & 12 \\
-6 & -6 & -6 & -6 & -6
\end{array}
\]

This is done by subtracting the same multiple of ten from both the minuend and the subtrahend. When John learns to do these in their simplest form, he is ready to try them in the form as taken from the original problems. Then after that, give him the original problems again.

Going back to the original long division problems, it will be noted that two of the errors result from subtracting a minuend ending in one, and in both cases he is just one point wrong. This at least would indicate a need for further
practice in this type of problem. Have him work several ex-
amples of this type on the board, doing his reasoning orally,
to see how he is thinking on this type of problem.

Carrying. In regard to whether pupils should be allow-
ed to mark down the figure which is being carried in an addi-
tion problem, Luella Cole¹ suggests that they be encouraged
to do so. She continues:

To begin with, children need to see the number in
order to be sure of adding it. Secondly, their atten-
tion span is so short that they can not be sure of
getting up the second column before they run out of
breath; if they pause anywhere they must go back to
the very beginning and start over unless the carried
number has been written down. In the third place, an
adult working under normal business or social condi-
tions usually writes down these numbers because he
may be disturbed before he can complete the addition,
and he does not want to waste time.²

Writing down these numbers is a normal, realistic
thing to do when working problems; and, considering that
it does aid accuracy, the children should be taught to
make use of the technique. The idea that mathematics
should discipline the mind is now obsolete, and carrying
those numbers in the head is nothing more than a mental
strain upon the child. Modern civilization causes too
many mental strains; consequently, when one can be avoided
it is a logical thing to do.

¹ Luella Cole, The Elementary School Subjects
² Loc. cit.
The figure may be placed above or below the column, depending upon whether the child is adding down or up. If the number is placed above, using a smaller figure than is used for the problem, it is less apt to be confused with the answer and, usually, there is more space at the top where it can be placed. If the addition is from the top to the bottom, there is less wasted time and action, because when the adding is completed the eye and hand are at the bottom ready to write down the total.

**Multiplying by zero or multiplying zero with another number.** Frequent errors arise in the multiplication of a number by zero or multiplying zero by another number. One means of teaching that the product in either case is zero is by the manipulation of objects -- pencils, shells, etc. Place a dozen or so upon the desk away from the student a little distance. Remind him that he has none of them. Now ask him, "If I were to give you nine times as many as you have, how many would you have?" Repeat this process with coins or other objects and after several attempts of this nature most students will realize and remember that the product is always zero. Then explain that the inverse is always the same, i.e., $0 \times 9$ equals 0.
Subtraction techniques. The old idea of "borrowing" in subtraction is replaced by a more logical method by D. Banks Wilburn who says we don't really borrow because we have no intention of returning it. He gives some concrete examples of how to proceed in teaching subtraction. For example:

\[
\begin{array}{c}
\text{33} \\
\text{-17}
\end{array}
\]

Begin by placing three rows of ten each and one row of three sticks, buttons, or some suitable object, thus:

```
 //////////  //////////  //////////  //
```

As it is impossible to take 7 from 3 take one of the groups of ten to put with the three, making 13; then subtract.

```
 //////////  //////////  //////////  ///
Leaving 6
```

Next, there is one group of 10 to take from two groups of 10.

```
 //////////
Leaving one group, or 10 in addition to the 6 left from the first part or a total of 16.
```

Another method of doing the same problem was shown:

```
. . . . .
10 plus 6 equals 16
```

The next method worked with figures but still used a learning aid. Thus:

---

For numbers ending in 0:

\[
\begin{array}{cccccc}
33 & 63 & 23 & 53 & 33 & 33 \\
-17 & -17 & -17 & -17 & -17 & -17 \\
\end{array}
\]

For three digit figures:

\[
\begin{array}{cccccc}
60 & 50 & 50 & 50 & 50 & 50 \\
\end{array}
\]

After applying this technique to the slow learners in a group a study was made which showed that the slow learners caught up to the rest of the group. It must be understood that these techniques are not a sample of regular class work, but are to be used in the capacity of corrective work.

Luella Cole\(^1\) also approves of this learning aid and frowns upon the idea of calling it a "crutch". When there is a usable technique that is an aid, it should most certainly be used, and research has proved that pupils do more work more accurately in less time by using it than they do without it.

Another subtraction technique shown by Cole\(^2\) is worth noting:

\[
\begin{array}{cccccc}
82 & 70 & 12 \\
-39 & 30 & 9 \\
40 & 3 \\
\end{array}
\]

\[
\begin{array}{cccccc}
43 & 30 & 13 \\
-27 & 20 & 7 \\
10 & 6 \\
\end{array}
\]

\[
\begin{array}{cccccc}
& & 43 \\
& & 43 \\
& & 43 \\
\end{array}
\]

---

2. Ibid., p. 351.
This should not be used as a regular means of working problems but merely to show the pupils what happens mathematically when one "borrows".

**Emphasize correct procedures.** Do not emphasize the wrong answer or procedure; always emphasize the correct form as this is more impressive to the child and should be the one he carries in his mind. If the wrong form is emphasized in an effort to show that it is wrong, it may remain in the pupil's mind, and when he is faced with the same situation again or even a similar situation, his mind may pick up the form which is remembered because by this time he has forgotten that this form was emphasized as being wrong. One cannot always be sure that the child has listened sufficiently well to have understood which form was right and which was wrong when both are given. He may have been engrossed in the mathematical process of trying to work the problem while the explanation was being given by the teacher. In this case he could very well have followed through on the wrong form making the same errors and ending up thinking he was right this time "for sure" because he obtained the same answer as was shown in the problem on the board.

**Technical words in arithmetic.** Technical words in arithmetic should be handled similarly to new words in reading. It is more important to explain them than it is to define them.
In a study made by Buswell and John\(^1\) they found that many students had absolutely no conception of the word *acre*, and many of those who knew that it was a measure of land had extreme ideas as to its size. Some of the answers they received were "a kind of nut," "a man's name," "houses," and "to have a stomach ache." Some of the concepts of measure ranged from one extreme, the size of the room (12' x 15') to the other, a square mile. It would be well to take the children out and measure off an area of one acre or to measure the school grounds and figure out how many acres are in it. This would give them a practical application of the arithmetic they are studying and might make them realize, more than any other way, the importance of the subject. This idea of illustrating or demonstrating could be used on many mathematical terms.

The use of drills. In the use of drill, Morton\(^2\) points out that thorough explanations of the processes before the drill is absolutely necessary, otherwise many pupils may perform their drill work incorrectly. He says, "... drill is not a substitute for adequate learning experience. Drill should follow rather than precede the development of an understanding of processes and steps in those processes."

---


He goes on to say that, "If a phrase in arithmetic is not meaningful to a pupil, it will not become meaningful by drill." 1

The teacher should teach the students to think of figures in terms of material things. For example, if a student is adding 2/3 and 3/4, have him think of 2/3 of one apple and 3/4 of another. He should be able to see these two parts in his mind; and when he combines them, he should realize that he is going to have approximately one and a half. At least he can see that he has more than half of each, and when he combines them he will have more than a whole one and less than two. Then if his answer is less than one or more than two, he can see that he has made an error somewhere. The writer has seen the above problem worked by the student's cancelling both 3's thus:

\[
\frac{2}{\frac{3}{4}} + \frac{3}{4} = \frac{2}{4} = \frac{1}{2}.
\]

If this student had been taught to estimate his answer, he would have realized that he was in error somewhere. Students are invariably going to do better work when they can see an application for the problem.

\[1 \text{ Loc. cit.}\]
CHAPTER VI

LANGUAGE ARTS

Spelling. It has been found that having children write words twenty times is a waste of time, because, when they finish the twentieth time, they make too many mistakes and the objective — learning to spell the word — is destroyed. In fact the slow learner has more possibilities of learning the word incorrectly in this manner than he has of learning it correctly. One student in writing a word twenty times made five different errors — an average of one error for each four times he wrote the word. If he had stopped on the third writing of it, he might have achieved some good from the work. Another student in writing the word English wrote the En twenty times, then the gl twenty times, then ish; and even so, when he wrote the twelfth En he dropped the capital. Much good this did that student! If the pupil has twenty words and he writes each one three times, he will be sufficiently tired of the job when he gets that far, so that further drill would be profitless. It is more advantageous to have two or three drill periods of shorter duration than to write twenty words twenty times. That chore would be tedious for any adult; it is even more so for the pupil.

Drill work. Corrective work in language skills is best accomplished through an abundance of drill which must
always follow several simple principles. First, the drill must be short or it becomes very tiring and boring to the individual so that he dislikes the idea and the work, and as a consequence he might not want to learn. In this last instance, then, one might have defeated his purpose. On the other hand, most students will participate quite well in a short drill exercise and may even like it. Second, drill work must be frequent in order to get the student beyond the plateau of learning. Studies which have been made show that short, frequent drills are more effective than any other procedure.

The teacher must remember that many things which seem simple and easy for her are in reality difficult for the child and require frequent and constant explanation. For example, the word don't may sound quite proper with the third person, singular subject to a child, largely because he has become accustomed to hearing it that way at home. However, to the teacher it is the next thing to repulsive. Proper explanation by the teacher is in order here along with short, frequent drills on the proper usage of both words. The drills may take various forms. One could be the use along with the various subjects, such as:

- I don't
- You don't
- He doesn't
- We don't
- You don't
- They don't

This particular drill can serve several functions as most any child will recognize the word you in several places.
and will inquire about it. In this lesson, then, he can add to his knowledge of singular and plural as well as the correct auxiliary verb form. One warning here: A drill cannot serve too many functions at the same time or the student is apt to lose the main purpose for which the drill was intended.

The next step is to explain the use of the apostrophe and write the drill work upon the board in this form:

- I do not
- You do not
- He does not
- We do not
- You do not
- They do not

Finally add the main verb and drill with a simple sentence such as:

- I do not run. You do not run. He does not run.
- We do not run. You do not run. They do not run.

The child is not going to use does correctly until he has heard it frequently enough to offset some of the misuse he has heard at home or elsewhere.

After taking a number of commonly misused words individually through an intensive drill as above, it is well to mix them up in another drill composed of sentences with blanks where the children can insert what they think is the correct form. This can serve as a pretest mostly to show the child where he is deficient before drilling further.

*Capitalization and punctuation.* Teaching capitalization and punctuation requires that detailed explanation of the rules be given along with a number of examples on the board. Don't try to teach too many rules at any one time as
that procedure causes confusion in the minds of the pupils—particularly the slow learners—and they begin to feel that they can never learn all that. Once the pupils take this attitude, one has a double teaching situation to perform: first, to get the notion out of their heads, and second, to do the actual teaching.

Begin with illustrating several uses of capitals, or with one use of capitals along with one punctuation use; then, after explanations have been given and examples demonstrated, try several more. The teacher will have to determine the maximum depending upon the background and capacities of the individuals in the class.

**Commonly misused words.** There are many words that are commonly misused by the students because they have become accustomed to hearing them used incorrectly by adults at home and numerous other places in the community. Some of these words are:

<table>
<thead>
<tr>
<th>Commonly Misused Words</th>
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<tr>
<td>shall, will</td>
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<tr>
<td>I, me</td>
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<tr>
<td>sit, set</td>
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<tr>
<td>may, can</td>
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<tr>
<td>leave, let</td>
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<tr>
<td>who, whom</td>
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<tr>
<td>lie, lay</td>
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<tr>
<td>rise, raise</td>
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<tr>
<td>did, done</td>
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<tr>
<td>teach, learn</td>
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</tbody>
</table>

Frequently the teacher finishes a detailed explanation of the proper uses of some of these and follows up with one or more of the class members giving examples only to have a student say, "But it doesn't sound right." This is a definite indication that a certain amount of oral practice is necessary for that individual (and probably others) before he will
become accustomed to using the proper form. It is well to take time occasionally for short oral drills on these words, and once in awhile to give a written drill so the pupils can have some evidence of their improvement. This will also give them a better indication of which words they are missing than the oral drill gives.

**Adjectives and adverbs.** To improve the vocabulary and descriptive abilities of students, make a game of finding adjectives to describe different nouns. Choose the nouns from some school work that has been studied recently or something which will be studied soon. Divide the class into an appropriate number of groups (depending upon the size of the class) so that the members of each group can work together. Five or six makes a good working group. Give each group ten nouns to describe in five minutes or some other definite length of time, depending upon the students and the nouns. The group having the most correct adjectives (eliminating colors, special adjectives such as a, an, the, this, that, these, and those, as well as slang such as a swell show, or a fine horse) is the winning group. The eliminations above should be discussed as a part of the explanation of the game. Such nouns as tree, book, house, clown, poem, vacation, friend, dog, horse, hat, automobile, factory, butterfly, weather, and soldier are good to begin with. Once the game gets started, the teacher will be surprised at the enthusiasm of the students and will find that on subsequent days the pupils will want to use
nouns which they found in other classes. In finding the adjectives, the pupils may use dictionaries or anything available excepting a book of synonyms which would give an unfair advantage unless each team had one. The teacher may be surprised to find that the pupils on the whole will understand the meanings of the words they choose, and the meanings should always be discussed if there is the slightest possibility that all members of the class do not understand them. The writer was surprised once to have a group turn up with the word *coniferous* which a member of one group pronounced correctly and for which he gave the correct meaning.

There are numerous times when one can use five or six minutes profitably in this manner and produce real educational results. Select new groups within the class from time to time to minimize the possibilities of any one student being in a losing group regularly.

Vary the game using adverbs instead of adjectives, but avoid the use of *awfully, frightfully, horribly, terribly, and terrifically* to mean *very*. The use of a *fabulously wealthy man* and an *exceptionally hot day* is much preferable to the use of *very*.

**Different meanings of the same word.** There are many words such as *seal, brave, watch, cross, crowd, etc.* which may be used as different parts of speech. Pupils should have practice using such words correctly in sentences, and numerous games might be employed for this purpose. The writer here
submits one word used in different ways in order to show some of the possibilities.

1. The steps were worn down by many feet. (adverb)
2. The car travelled down the road. (preposition)
3. Mother bought some down pillows. (adjective)
4. This quilt is filled with white down. (noun)
5. He could not down his opponent. (verb)

Penmanship. A more interesting way of practicing the improvement of penmanship is to play a game with letters such as: 7, e, l, t, d, a, o, h, k, m, and n. There are twelve of these which are most frequently malformed in children's and adult's writing. Choose eight of the letters at a time and have the children use them as a basis of determining how many words can be made from them. The words must be written out and the letter forms must be satisfactory to the teacher. A good way to choose the letters is to have them on individual squares of cardboard, put them into a box and shake them up. Different students may each draw a letter until the eight are chosen. At the next choosing, the letters are quite apt to vary, so it will be unlikely that lists of words held over by the student will fit. This will give practice in dictionary work, and in thought, as well as in penmanship.
CHAPTER VII

SUMMARY AND CONCLUSIONS

The modern high schools are now adding guidance and counselling centers as part of their aid to students, but in the grades below high school every teacher must have some ability to recognize the retarded and begin planning instruction according to their needs and abilities. Teachers cannot wait until students get to high school to do what must be done for them. The sooner the teachers begin recognizing deficiencies and overcoming them, the fewer maladjusted individuals will there be, and at the same time those who may be maladjusted will be so to less degree. Early treatment will overcome greater complications later. However, the writer doesn't presume to suggest that all maladjustment can be avoided. Until the state of Utopia is accomplished there will be maladjustment, but there most certainly is much that can be done to avoid a great deal of it.

In order to have a clearer picture of the student the schools should begin keeping comprehensive cumulative records from the child's first entrance into school. These records should go with the individual all the way through his school career, each teacher who comes in contact with the pupil adding something to the record concerning the child, his health, environment, natural abilities, likes and dislikes, his activities, achievements, citizenship, sociability, coopera-
tion, self reliance, emotions, etc. In any one or in combinations of these may lie a clue to a difficulty which, with assistance, the individual may surmount. Also, in any one may lie a clue as to what can be done or how it can be done in order to be the most help to the individual. All too frequently a clue to either of the above situations may lie in an apparently insignificant thing when seen alone but when seen as a part of the complete picture, it has real significance.

It is hoped the suggestions in this paper will save teachers time in determining who needs help, the kind and amount of help, and how best to help them in the local school situation.
Anderson, Genevieve, Adjusting Reading Programs to Individuals. Supplementary Educational Monographs, No. 52. Chicago: University of Chicago, October 1941.


