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TEACHING READING IN ADULT BASIC EDUCATION.

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TEACHING READING IN ADULT BASIC EDUCATION IS DESIGNED TO GIVE PRACTICAL AID TO THOSE PREPARING FOR OR ENGAGED IN ADULT BASIC EDUCATION. WHILE MANY OF THE SUGGESTIONS ARE DIRECTED TO THOSE TEACHING READING CLASSES, READING SKILLS SHOULD BE TAUGHT AND DEVELOPED WHEN TEACHING IN THE OTHER AREAS SUCH AS MATHEMATICS AND GENERAL KNOWLEDGE. THE SECTION ON READING IN SPECIAL SUBJECT MATTER AREAS SHOULD PROVE OF VALUE TO THE TEACHER WHO HAS NOT HAD STRONG TRAINING IN THE TEACHING OF READING. CHAPTERS INCLUDE TEACHING ADULTS, STAGES OF ADULT READING, ASSESSING FOR INSTRUCTION (INCLUDING AN INFORMAL READING INVENTORY CHECK SHEET), GENERAL INSTRUCTIONAL METHODS, TECHNIQUES FOR SPECIFIC LEARNING DISABILITY CASES, TECHNIQUES AND MATERIALS FOR THE INTRODUCTORY, ELEMENTARY, AND INTERMEDIATE STAGES (INCLUDING DEVELOPING RECOGNITION VOCABULARY AND COMPREHENSION, SELECTING INSTRUCTIONAL MATERIALS, AND WRITING MATERIALS), READING IN THE SUBJECT AREAS OF MATHEMATICS, SOCIAL STUDIES, AND SCIENCE, THE DEVELOPMENTAL STAGE, AND AN ANNOTATED BIBLIOGRAPHY OF MATERIALS FOR THE INTRODUCTORY, ELEMENTARY, AND INTERMEDIATE READING STAGES. APPENDIXES ARE ADDRESSES OF PUBLISHERS AND A PROFESSIONAL BIBLIOGRAPHY. (AJ)

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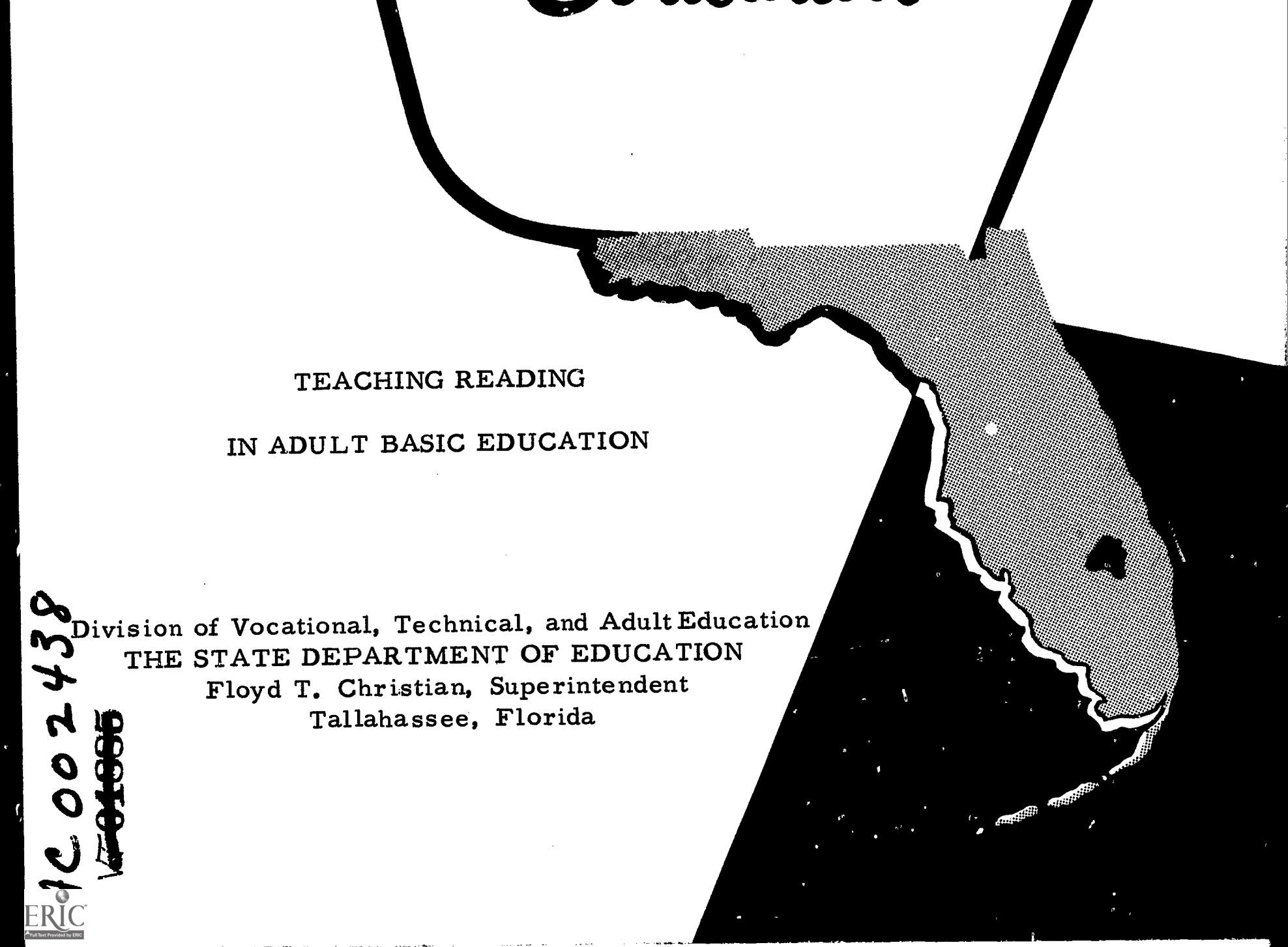

TEACHING READING

IN ADULT BASIC EDUCATION

Division of Vocational, Technical, and Adult Education
THE STATE DEPARTMENT OF EDUCATION
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Tallahassee, Florida

GENERAL ADULT EDUCATION

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TEACHING READING IN ADULT BASIC EDUCATION

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CHAPTER I

INTRODUCTION

There is an occupational necessity for millions of adults to attain functional literacy. Others must up-grade their reading skills or become casualties of the new technology. The stepped-up technology is bringing rapid and continuous change. Constant on-the-job training is necessary for a worker to remain contemporary in most occupations. Much of this training must be self-education through the vehicle of reading. Sources such as trade manuals, trade journals, and trade papers enable the automobile mechanic, the plumber, and the television repairman to stay current with the sometimes monthly innovations in their trades. Few vocations are so lowly that change is not taking place within them To keep up with these vocations, workers must read. The domestic servant of yesterday is the home attendant of today. She is expected to have a degree of specialized knowledge and sometimes she has taken formal courses in order to gain that knowledge. The same is true of the holders of other formerly non-specialized jobs.

Many jobs are being phased out at a rapid rate. This is particularly apparent in jobs which call for easily automated skills. Employment figures show that there are more jobs than ever; but many of them go begging. Some of these are ones that students in adult basic education can look forward to filling when they develop the educational skills that the jobs demand.

Nearly all vocations today call for more depth of knowledge and more flexibility in learning than was true in the past. The time when a person could learn a trade and be assured of a life-long occupation is gone. To survive in the economic market place, adults must be able to read on a level consistent with the new demands of their vocations and with the demands of occupations to which they aspire. Reading is one skill that enables a worker to prepare for another vocation as he sees his present one falling victim to technological change.

The market for unskilled labor is dwindling rapidly. No longer can we tell a child that if he does not apply himself to his studies he will grow up to be a ditch digger. Ditch diggers, in the old sense of the term, are no longer needed. A major task facing society is the preparation of illiterate unskilled adults for economic participation in the Great Society.

Adult basic education is concerned with at least four types of students. These include the totally illiterate adult, the high school drop-out, the person whose reading skills are below the level needed to process the general materials written for the broad adult population, and the high school graduate who cannot read at the newspaper readability level. Most of these people come from culturally deprived environments. Some are the direct result of poor pedagogy. And some are specific reading disability cases that have not been given the attention needed to teach them to read.

Census figures do not give an accurate picture of the number of functional illiterates. Few of the drop-outs are included, though it is known that those who leave school in their junior or senior high school years tend to be far below average in reading ability for their grade placement. Many of them are unable to read a newspaper. Along with this group there is the group of high school graduates, most often coming from high schools in culturally deprived areas. These unfortunates, though legally high school graduates and listed by the Census Bureau as having a 12th grade education, are unable to read materials designed for the average adult.

Adult basic education is primarily concerned with three main academic areas. It is education pointed at developing the communication skills, mathematical skills, and the general knowledge which provide the student with tools for self-learning. One task of those engaged in adult basic education is to bring the students up to an acceptable standard of functional literacy. With increased reading needs, the old standards for functional literacy no longer make sense -- if they ever did! Some years ago the standard for functional literacy was set at the fourth grade level. Later it was learned that skills developed only to the grade four level were gradually lost to the students because little material was written for that level that met their interests or needs. The skills withered from disuse. As a result of this finding, functional literacy was set as fifth grade reading ability Today, it is generally accepted that functional literacy should mean that a person can function when faced with materials with a readability level of grade seven.

The curriculum of adult basic education should not be the same as the curriculum for children in the elementary school. Subject matter should be correlated and should include occupational orientation, family relations, government responsibilities and services, law for the layman, consumer education, personal development, current science concepts, and current social concepts. Using such content, the skills of reading, writing, speaking, listening, and mathematics should be developed.

Teaching Reading in Adult Basic Education is designed to give practical aid to those preparing for or engaged in adult basic education. While many of the suggestions are directed to those teaching reading classes, it should be obvious that reading skills should be taught and developed when teaching in the other areas such as mathematics and general knowledge. The section on reading in special subject matter areas should prove of value to the teacher who has not had strong training in the teaching of reading.

CHAPTER II

TEACHING ADULTS

Teaching adults is different from teaching children. Adults generally learn faster and tend to be more cooperative than do children. They are learning what they want to learn and they can see an immediate reward for their efforts. Adults try harder for they can see the social, occupational, and financial results that will accrue to them. Learning is easier for adults for their brains are better developed and their mental ages are considerably higher than those of children. A dull adult with an I.Q. of 85 learns considerably faster than an average child of six or seven. Contrary to popular opinion, you can teach an old dog new tricks. And he will learn them faster than a puppy will!

Adults are more sensitive than are children. They do not react to failure in the same way that children do. They are less able to take criticism and are apt to 'clam up' or 'blow up' if their self-concept is threatened. It is important that they succeed right from the beginning. Many of them have had past failures in school. They will not repeat those experiences, so for insurance it is better to begin with materials that are somewhat easy rather than to take a chance and put them on materials that may frustrate them.

Illiterate adults are especially sensitive. They are embarrassed by their social condition and ashamed of their illiteracy. Often they try to keep it hidden from their own children. Some pretend that they can read but "they have misplaced their glasses." Many of them were brought up in homes where no one could read or write. Some will have a few magazines around the house and a great many of them will say they can read the Bible (but they have merely memorized some often-heard passages). As much as possible, go along with their pretense and help them to save face in front of others. Try to empathize with them rather than offer sympathy. They don't want people feeling sorry for them for they are proud people.

Illiterate adults learn fastest from materials that have personal meaning to them. Helping them to read signs, letters from friends, or materials that they have composed orally, makes for high interest and active participation. Labeling objects in the classroom will prove helpful. Bringing in pictures of highway signs or making such signs is useful. Some drive cars (with or without a license) and have learned to recognize some signs by their shape. This makes it easy to teach them to read the words on them. They have a real need to learn to read such signs, and the satisfaction of that need will motivate them to continue learning. They also have a need to read t[illegible]les of some of the popular television shows and the names of some of t[illegible]oducts that are advertised. These are easy to teach for the producer[illegible]hese shows use sound educational techniques to teach people to remember the names of the shows and of the

products being sold. The illiterate adults talk about the shows, buy and handle many of the products, and know the names of the star performers.

Adults have more physical problems associated with learning to read than do children. After the age of 35 they prefer more illumination than do younger people. Flickering lights irritate them more and glare is less easy to tolerate. The loss of visual power is matched by a loss in auditory acuity and in reactions to auditory stimuli. This decay of hearing power generally starts in the late teens and tapers off in late adulthood.

The fact that adults have more hearing and seeing problems than children does not mean they are more difficult to teach. Many of the productions of eminent people were done long after their physiological prime. Most teachers over 30 would agree that physiological prime and psychological prime are quite different. Both must be considered in teaching. When teaching children, their undeveloped bodies and brains must be considered. When teaching adults, certain physiological weaknesses should be taken into consideration. Duplicated materials should be double spaced and pica type should be used. Glare should be reduced to a minimum and seating should be so arranged that group activities take place with the students close to the speaker or speakers. If possible, arrangements should be made for a visual examination of those who appear to have visual difficulties. To enable those with hearing problems to get your communications better, an effort should be made to speak relatively slowly and distinctly. If you are a pacer, try to slow down your movements lest you distract the listeners. Unusual words should be enunciated clearly and repeated and questions directed to the teacher or other member of the group should be restated. If you keep in mind the fact that people of different ages vary in their physiological deficits, it will help you in adjusting the study tempo to the individual. These adjustments are probably easier to make than the adjustments that must be made when teaching children. After all, adults are our own kind!

Adults (and that includes teachers) are likely to have more rigid habit patterns than are children. While these habits can be modified, it takes longer than with children for they are more firmly established. This is especially true with language style. This is a sensitive area and an indirect approach will prove more fruitful than a direct one. Some illiterate adults have had but a few experiences with standard English and your language may seem as strange to them as their language seems to you. Don't begin by correcting their grammar! More socially acceptable language style will be developed as ability to read increases.

Adults need the security of belonging. They prefer an informal, friendly atmosphere where their opinions may be freely expressed. They must be made to feel that their opinions and needs are important. They must accept the teacher as a member of the group if he is to get optimal communication with them. Before really effective teaching can take place, the students must identify themselves as participants in a

learning group that is striving for the same general goal. Try to find a common experience that all have had and use it to start discussions. Generally, all will have an experience where they helped someone in trouble or an experience of insecurity when they began their first job. From their common general experiences, the students can be led to talk about their individual interests. Modification of some interests and the development of new goals is a proper task for the adult basic education teacher.

'Busy work' should be avoided. While, unfortunately, it is common practice to give children work just to keep them busy and 'out of the hair' of the teacher who is busy with some paper work, this will not do with adults. They consider their time to be valuable and rapidly recognize when the teacher is wasting their time. Children do too, but they cannot walk out! It is far better to give the class a break when something comes up which interferes with teaching. The students can understand that and will try to help by cooperating.

Teaching units should be relatively short. This gives the student a feeling of accomplishment because he can digest short units faster than long ones. For many, successful formal education is an unknown experience. Short units will demonstrate to the students that they can succeed. In the early stage, instructional materials are best when they are pamphlet length rather than book length.

Adults should be aided to move along at their own learning rate. This rate will differ from student to student and often differs from one subject to another. Pressure to cover a lesson often results in the lesson being 'covered' but not learned. Remember, these people are in class to learn and not just to pass examinations.

Examinations for the purpose of grading students should be avoided. This is particularly true for those at the introductory levels. They tend to see examinations as threats to their already damaged egos. However, informal appraisals are acceptable after rapport and an esprit de corps have developed.

Avoid drab uncomfortable classrooms. Students who are hot, cold, hungry, overtired, or in pain, are not attentive. When fire laws permit and ventilation is adequate, smoking should be permitted. Lighting should be adequate and should develop little glare. Noise levels should be such that a normal conversational voice may be heard by all students. Room furnishings should indicate that the people using them are respected -- not castoffs who receive hand-me-downs.

If possible, provide coffee breaks. While these are time consuming, they help to build groupness and feelings of belonging. If the students feel that they belong, they will invite their illiterate friends. Your students are the principal source of other students. Moreover, these coffee breaks provide the best time for gaining personal understanding of an individual student's problem and goals.

Make sure that the method fits the student. A number of different methods and techniques are discussed in this book. You may have to try several before you find a 'good fit.' Take the time needed to do so. You are not teaching materials,but are using materials to help you teach the students. To do so, learn both the methods of teaching and your students. Teachers frequently ask, "What do you do when the student cannot read the book?" The answer is, "Who is the teacher, you or the book?"

Expect learning plateaus. Progress in mastering skills does not continue at the same observable rate. Often there will be periods when nothing seems to be happening. This generally occurs after a spurt of learning. Do not despair. The student is on a plateau. After a period, he will show more progress. Learning is taking place during the plateau periods. It is not observable.

When you are teaching adults, remember that they are adults. Talking down to them, setting up petty rules, and even calling the roll may set up blocks between you and the students. To many of the illiterates, you represent the upper classes. If you are condescending in your manner toward them, they will be aware of it. They will resent it.

CHAPTER III

STAGES OF ADULT READING

There are four stages of adult reading ability. The adult who has attained true functional literacy has passed through three of the four stages of reading. He has reached a point where he can develop his reading power and speed on his own. He can engage in the general adult reading world. Newspapers, some magazines, and many adult books are open to him. He can develop his general knowledge through communication devices designed for the general public.

The first stage of literacy training is the introductory stage. This stage is similar to the first three grades of school in terms of readability levels of materials and the reading skills that are taught. In this stage, the adult learns to recognize several thousand words that he already has in his listening vocabulary. He learns many of the basic word attack skills and uses them to teach himself new words. At this stage, students should learn that writing is merely language that is written down, and that the reading task is that of rapidly translating written symbols into oral symbols utilizing appropriate stress, pitch, and intonation.

The second stage of literacy growth is the elementary stage. At this point, the adult has learned many of the mechanical aspects of reading and he can respond to most words automatically. With many of the mechanics of reading out of the way, he is better able to concentrate on the more complex comprehension skills. Literal reading is stressed at the introductory stage and continued into the elementary stage, but at this level, great emphasis is placed on the higher interpretive skills. Reading to learn rather than learning to read becomes the adult's objective. In terms of readability and skills taught, this stage is comparable to grades four, five and six.

The third stage of adult reading is the intermediate stage. At this stage, stress is placed on depth of meaning, flexibility in reading, and developing competence in reading in occupational areas of interest or necessity. Emphasis is placed upon gaining competence in materials written for the general adult population. This stage is the transition stage from special materials written for people who are preparing for entry into the world of adult literacy to materials written for the general literate adult population.

The fourth stage of adult reading is the developmental stage. When he has reached this point, the adult is truly literate and can develop both his power and speed of reading on his own or with minimal help. There he is free to pursue his special interests, satisfy his curiosities, and build his knowledge, limited only by his capabilities

and drive. Many people continue to improve their reading habits and skills through most of their adult lives. No one knows the upward limit of the developmental stage. In this stage, the student is better defined as "a reader" rather than as "one who can read."

It has been estimated that it takes about 200 instructional hours to take an adult through each of the first three stages of reading. But this is an estimate based on the average adult basic education student. Since people learn at different rates and better under some conditions than under others, it is impossible to accurately predict how long it will take a person to go from one stage to another. However, the majority of adults with a good listening ability will, under small group conditions, move through each of the first three stages within 150 to 250 teaching hours. The time required will also vary with the amount of effort the student expends on outside practice and with his intelligence.

All instructional hours are not of equal value. Research indicates that spaced practice is more effective than massed practice. A three-hour per night literacy class is not three times as effective as a one-hour per night literacy class. It is doubtful if it is even twice as effective! Clinical experience indicates that one hour per day of intensive individualized reading supplemented by an hour of independent work will bring most intelligent adults from non-readers to a third grade reading level in about a hundred instructional hours. Experience with evening classes meeting three and four nights a week indicates that small group instruction is ineffective after the first hour and a half to two hours and that the final hour should be spent doing independent reading. Experience with day classes meeting four hours a day indicates that two short reading periods are more effective than one long one.

No amount of instruction can make a reader, just as no amount of coaching makes a team. The team must play ball in order to become proficient. The reader must read.

In estimating the time needed for a student to pass through a reading stage, several factors must be considered. First, an estimate of his listening ability must be made. This will help in determining his probable potential for reading. Second, the time of day and the degree of fatigue the student exhibits must be considered. Third, the student's general cultural background and motivation are factors. Fourth, the type of instruction (individual, small group, large group, or mass media) affects the rate of learning. Fifth, the spacing of the teaching is an important factor. Sixth, the training of the teacher and the supply of teaching materials affect the learning rate of the students.

More effective use is made of a teacher's time if classes can be formed with students at the same reading stage. Within these classes, groups may be formed with students who are reading on approximately the

same reading grade level. The groups will move along at different rates and individuals within the groups will also move at different rates. Flexibility will save money for the school and save time for the students. When a student forges ahead of his group, he should be moved to another group. If, for practical reasons, a student completes a stage and cannot be put into a class at a higher stage,than instruction may be given him through the use of individualized reading (discussed in a later chapter) and through programmed materials. Remember that the purpose in grouping for instruction is for increased efficiency in teaching individuals. If one cannot deal effectively with the individuals in a group, then there is no purpose served by such grouping.

Though in most cases you will be teaching in a traditional box type classroom, you should be prepared to suggest a better educational facility. Where possible, the communications laboratory approach might be used. It might have 15 to 20 individual learning stations. It should also be so flexible that it can be arranged for whole class and group activities. The laboratory should contain materials that can be used for group instruction and for self-instruction. A bibliography of such materials is given in Chapter XI.

Lock-step instruction will lock some students in a reading stage. Differentiated instruction with differentiated materials is a vital principle of good basic adult education.

Research on the use of mass media (which does not permit differentiated instruction) indicates that non-differentiated teaching fails with many students. It is, therefore, very expensive in terms of the results obtained. Furthermore, it is objectionable to many adult reading failures because it is identified with their failure.

The concept of reading stages and reading levels aids us in providing instruction at the proper level according to the needs of the student. It also helps us to conserve teacher and pupil time and offers guidance in planning for the materials needed for literacy classes. The concept should serve as a guideline for all teachers engaged in adult basic education. Yet it must not lead to "lock-step instruction."

Lock-step administrative practices have no place in adult education. Admission to literacy classes should be open at all times and not depend upon any academic calendar. Since the classes for each stage will generally contain students reading on several different grade levels, and since the rate of progress will differ from student to student, the classes should remain open to admit new students. These will replace those who complete one stage and go on to another or will replace those who have completed the final stage of the reading phase of the program. Where the literacy training is part of a self-contained adult basic education class, other flexible arrangements may be made.

CHAPTER IV

ASSESSING FOR INSTRUCTION

Matching methods, materials, and students is a key to effective instruction. The teacher meeting any adult literacy class must rapidly determine the specific training needs, and specific techniques that may be needed for each pupil. To do this, two types of instruments are helpful. These are Informal Reading Inventories and standardized oral and silent reading tests. From these instruments, four levels of reading may be determined. These levels are the present potential level, the instructional level, the independent level, and the frustration level. This must be done before instructional materials are selected and groups are formed. The teacher must also quickly evaluate those who enter after the initial class is formed, and perform a regular assessment of all pupils in order to determine their rate of progress and further needs.

The Present Potential Level is the highest level of graded materials that the student can comprehend when material is read to him. The rationale behind this concept is that writing is merely printed speech. If the listener can understand what is read to him, then he will be able to read with understanding at that level once he has acquired the needed reading skills. The present Potential Level test is sometimes considered to be a safer test to use in estimating adult capacity for learning to read than a verbal intelligence test. Many who are enrolled in literacy classes are culturally deprived. Intelligence tests tend to give a false picture of their capacities. The measurement of the Present Potential Level should be repeated at frequent intervals, since improvement of general communication skill may occur with further schooling.

To determine the Present Potential Level one should use reading materials that have been carefully graded in terms of readability. These graded materials can be found in Diagnostic Reading Scales (California Test Bureau), Durrell Analysis of Reading Difficulty (Psychological Corporation), Gilmore Oral Reading Test (Bobbs-Merrill Co.). The instructions for administering listening tests are given in the first two tests mentioned. The other two can be used as listening tests. The teacher reads the graded paragraphs to the student and asks him questions about them. The level below which he fails to adequately comprehend the content of a paragraph (selection) is his Present Potential Level. Those who do not have access to the materials mentioned can make a Present Potential Test by selecting 150-200 word selections from graded readers or other sources that give the readability level of the material. These may be bound in a loose leaf notebook and used as needed.

If the Present Potential Level is very low, investigate other factors before you give up. If the person is severely deprived

culturally, especially in his exposure to standard American English, training in listening may be given to see if the listening level can be raised. For those who lack information about this area, two helpful sources are given. (1) What Research Says to the Teacher, 29; Listening, and (2) Listening Aids Through The Grades (N.E.A.).

The instructional level is the level of graded materials where the student can recognize well over 90 per cent of the running words instantly. It is the point where he can read smoothly with adequate comprehension and without undue stress.

The instructional level can be determined through the use of graded paragraphs. The student is usually asked to read one paragraph orally and another silently at each grade level of readability. The testing should include materials easy enough to enable the examiner to find a level at which the student can read fluently and comprehend easily without aid. It should include the use of materials difficult enough to enable the examiner to find the highest level at which the student can read with help from the teacher on only a few (not more than 5%) of the running words.

Most reading experts prefer the use of an informal reading inventory for the determination of the instructional level. Standardized silent reading tests compare student performance with the performance of other students. Their use in choosing materials for instruction is unfortunate.

Standardized oral reading tests,such as those previously named, are fairly reliable guides to finding proper instructional levels. For the novice reading teacher, such tests are probably more appropriate than an Informal Reading Inventory.

The independent reading level is generally one grade level below the instructional level. It is the level where the student instantly recognizes well over 95 per cent of the words, understands with ease what he has read, and reads aloud smoothly. If absolutely necessary, the independent level can be assigned by rule-of-thumb once the instructional level is determined. When the frustration level is reached, the student is liable to hold the book very close to his face, or point with his finger to the words as he reads them. His voice may rise in pitch or decrease in volume. The material is too difficult for him to handle pleasurably and profitably.

A check sheet for recording reading difficulties and levels of reading should be kept on each pupil. As you work through the Informal Reading Inventory or standardized oral reading test with a student, indicate areas of difficulty with check marks. One check sheet can be used to record three different inventories by using black markings for the first inventory, blue marks for the second inventory, and red marks for the third one. This has the advantage of enabling one to see at a

glance whether improvement has been made in areas of specific difficulty. It also focuses attention on skills that need strengthening. The following is a condensed version of such a check sheet. Most teachers will want to develop it further.

Informal Reading Inventory Check Sheet

Name_____ Age____ Date(s)_____

Address _____ Tester _____

Recognition Vocabulary

Basic sight words _____
Vowel sounds _____
Consonant sounds _____
Consonant blends _____
Letters omitted _____
Endings omitted _____
Reversals _____
Substitutions _____
Other_____
_____

Rate Difficulties

Lacks flexibility _____
Many regressions _____
Poor rhythm _____
Skimming _____
Other_____
_____

Meaning Vocabulary

Prefixes _____
Suffixes _____
Roots _____
Context clue _____
Other _____
_____

Comprehension Difficulties

Flow of language _____
Main idea _____
Major details _____
Summarization _____
Integration _____
Directions _____
Inferences _____
Rhetorical devices_____
Retention _____
Other_____
_____

Special weaknesses_____
_____

Instructional grade level ____ Independent grade level _____

Frustration grade level ____ Present Potential Level _____

_____
_____

A standardized silent reading test should be given at intervals to all students. The results must be interpreted with great care! At the introductory stage the tests tend to overestimate the student's reading ability. They should not be used in determining instructional level. But students want a record of their progress. Governmental agencies often request a record of the student's progress and achievement. In many states elementary grade certificates are dependent in part on the student's achievement on a standardized reading test. Therefore, an objective measure of progress is required. Since the standardized reading test is objective and its error of overestimate tends to remain rather constant, it can and should be used for this purpose. It is recommended that a test with several forms be used. The test should be appropriate to the stage of reading where the student is operating. A testing interval of about fifty hours may be feasible. A different form should be used for each testing.

Standardized silent reading tests that may be used at the three stages of adult basic education include the Gray-Votaw-Rogers General Achievement Tests, (Steck Co.), and the Stanford Achievement Tests (Psychological Corporation). Others of value, when carefully interpreted, are the Metropolitan Achievement Tests (Psychological Corporation), and California Reading Tests (California Test Bureau), and the Gates Reading Survey, Grades 3 5-10 (Bureau of Publication, Teachers College, Columbia University).

All standardized tests have a band of error. This band is described in the test manuals. It is important that teachers keep it in mind when reviewing test results. It is possible, just by chance, for a person to earn a score much too high or much too low any time he takes a test. Some students who have made real progress will show a decline in test scores after fifty hours of instruction! Many teachers panic when they see such a result. However, the loss in score can frequently be explained by examining each item carefully. Sometimes a student who reads poorly guesses at every answer and gets one fourth of the answers right. Upon taking another form of the test at a later date, he may only attempt those questions to which he is sure of the answer. Thus, his total score and grade-norm regress. The best way to prevent such cases is to choose the standardized tests carefully. The test chosen should be one where the student's expected score is near the middle of the range of scores possible for that test.

An item-by-item analysis should be made of each test. Perhaps the least important information that a test gives is the total reading grade level. The great value lies in the diagnostic information that it can give you. A careful examination of the test may reveal specific deficiencies in word attack skills, in meaning vocabulary, in spotting key words, in reading critically, and even in test-taking. The last item is of particular importance for adults. Many adults have never seen or taken a standardized test. The first exposure to this type testing is apt to be unsettling. Remember that separate answer sheets

complicate this problem even further. If the answer to question two is placed on the answer sheet after item three, every mark on the remainder of the answer sheet may be out of place.

The more information one has about a student, the better. If possible, a folder should be kept which contains the student's various test results, notes on his needs and interests and occupational goals, and any other information that has been passed on by guidance counselors, other teachers, or the student himself. Students should be observed to see if they are having visual difficulties, hearing difficulties, or emotional difficulties that are interfering with their learning. The folder should contain a progress chart and a list of the independent reading the student has completed. This folder should accompany the student as he moves through the stages of adult basic education.

CHAPTER V

GENERAL INSTRUCTIONAL METHODS

There are five widely used approaches to teaching reading to adults. These are the basal adult reader approach, the individualized reading approach, the experience approach, the programmed instruction approach and the packaged program approach. A good program may incorporate all of these approaches, but each will be described separately.

The Basal Reader Approach using series designed for children is not psychologically acceptable to most adults. Basal readers for children present vocabulary and skills in an orderly and related way. Workbooks which reinforce vocabulary and other skills generally accompany the series. Research strongly supports the use of this approach with children. Little real research on any approach to adult reading has been completed. Adult texts have been developed that incorporate many of the strong points of the basal series for children. Unfortunately, at the date of this writing, many of the adult texts are comparatively weak. Their writers attempt to teach too much in too little space. Instruction is designed for a pace far too fast for most learners. Several adult texts for the same grade level should therefore be used. They should be supplemented by other instructional techniques including programmed instruction, the experience approach, and the individualized reading approach.

The experience approach may be used to supplement a textbook approach. Usually, the teacher encourages the student to tell stories or anecdotes individually or as a group. The students make up a story or jointly relate a common experience. The teacher then aids them in selecting words and in structuring the story. He teaches them the printed form of the words, has them read the story from the board or from a large chart, and finally has the stories typed up and bound. In many cases, the students themselves do this typing. There are many other techniques that can be used with this approach. The best source is probably Learning to Read Through Experience (Appleton-Century-Crofts). The methods suggested for use with children may be utilized for adults, if modified.

Individualized Reading may be used as the core of the program or as a supplement to the textbook program. This approach calls for a large classroom library with books of known readability. The teacher who aids the pupil in selecting books that he wants to read (the teacher steers him to books on his independent level) is available to help him with words that give him difficulty, and has regular conferences with him to diagnose weaknesses and maintain strengths. The approach is more appropriate near the end of stage one and in the later stages than during initial reading instruction. There is an abundance

of material appropriate for this approach. Many books written for children are highly interesting to adults. The list is far too long to include here, but a perusal of the catalogs of some of the publishers listed in Appendix A will provide you with a wide choice. The publishers will send their catalogs on request.

Programmed instruction is no longer a new approach for teaching reading. However, much of what has been done is not first class. The approach, which permits students to progress at their own rates, has much to recommend it. Essentially, it is a self-teaching technique with the student being informed of his success or failure (and the failure rate is kept very low) immediately after making his response. It definitely has a place in teaching adult basic education and has proven to be an effective way of teaching mathematics, English, and reading. There are many programs on the market or currently being developed. Such companies as Follett Publishing Company, Bobbs-Merrill Company, and California Test Bureau will send descriptive literature concerning their programmed materials.

Programmed instruction is one good approach to use with adults. However, it should not be expected to carry the whole load; especially in reading. For maximum usefulness, teacher supervision is needed. Skills that are learned should be tried out and reinforced and the teacher has an important job of guidance to do. At the time of this writing, programmed materials in reading offer more promise than results, but good literacy programmed materials should soon be available.

The "Packaged Program" approach uses many vehicles. Some companies have developed programs that include film strips, teaching machines, and classroom libraries. Others have developed "reading laboratories" which contain multi-level materials which can be used with a whole class or with an individual. These generally are composed of a large number of units, each having exercises for developing reading skills. Some are appropriate for adults. Many publishers are discovering a truth that television and movie producers have known for a long time. Namely, that there is a general interest range which covers both children and adults and that programs designed for adults, if within the general interest area, are acceptable to children. Most seem to be preferred over programs designed for children. However, television shows and movies designed for children are generally not acceptable to adults. The same holds true for reading materials. An outcome of this insight is the production of materials of controlled readability that can be used with both children and adults. The dictum that materials designed for children should not be used with adults is no longer true. Rather, most of the material designed for children should not be used with adults. "Neutral" materials are acceptable to both adults and children.

A well-rounded properly financed adult basic education program will include a wide variety of materials and methods. The cost-quality

relationship in education is a well established fact; though one that is often ignored. Few adult basic education programs have spent enough money on materials to utilize 1960's knowledge. The savings of a few dollars per pupil through scrimping on materials is a costly factor in adult education. In literacy education, it sometimes prohibits the kind of flexibility needed to do an adequate job and the savings on materials is more than balanced by the costs involved in a longer training program. No adult center can afford to waste money by cutting corners on its materials budget. A good instructor without good materials may be no more effective than a television set that lacks a good aerial.

CHAPTER VI

TECHNIQUES FOR SPECIFIC LEARNING DISABILITY CASES

Two to five per cent of the general population suffer a specific learning disability. These people, though of normal intelligence, do not attain a functional literacy unless special methods are used. They have frequently been exposed to the teaching of reading and have failed to profit from it. Many people in this category are convinced that they are stupid. Some have other personality problems. Many are intelligent persons who cannot learn to read as most other people do with such seeming ease. The best therapy that can be given these people is to teach them to read. With patience and special methods, this can be done.

All the causes of specific learning disability are not known. Many of the cases appear to result from damage to the central nervous system. Some appear to be caused by maturational lag. Some are hypothesized to be caused by an unusual structuring of the central nervous system. The cases with a known brain injury affecting their communication ability are classified as aphasics. Those aphasics whose communication problem is primarily the inability to read are classified as alexics.

Many adults who are suffering from alexia have not been formally identified. Most illiterates from the culturally deprived group need no neurological examination. To indicate that one might be needed would frighten many of them. Furthermore, since the cause usually cannot be remedied and the diagnosis is often uncertain, the examination would not prove of great value. However, teachers should recognize some of the symptoms associated with alexia. When many of these are displayed, the student should be taught special methods. In no event should an adult basic education teacher classify a person as an alexic. Most neurologists would be reluctant to make such a diagnosis; an educator certainly should not.

There are a large number of adults who show symptoms of a specific learning disability but who do not exhibit neurological malfunctioning. Some of the symptoms of a specific learning disability are similar to those of alexia. As teachers, it is not our task to determine the causal factors of the specific learning disability, but rather to differentiate the specific learning disability group from those who have not learned to read because of poor pedagogy, cultural deprivation, and visual or hearing handicaps.

Specific learning disability tends to run in families. Questioning will often reveal that the father of the student showing a specific learning disability syndrome also had difficulty learning

to read. Often the brothers of the student are reading disability cases. Though otherwise bright, the specific learning disability case cannot learn to read in an ordinary situation. He cannot break the poverty chain without specific help.

The symptoms of a specific learning disability are easily recognized. Some of these symptoms are: flat voice; reversals of letters and words; distractability; poor visual memory for words; slow visual-motor perceptual speed; difficulty with rhythm sequences; poorly developed laterality; repetition of the same mistakes; inability to stand stress; weak concept confusion; figure background difficulty; difficulty with closure; erratic handwriting; and short anticipation span. These cases can often read a word out of context far better than they can in context. They have difficulty remembering the images of such words as where, when, that, what, was, here, there, and other short very frequently used words. They also have difficulty recognizing a word that is incomplete or mutilated. In many of these respects they are no different from beginners or other poor readers. The significant feature is the presence of the majority of these symptoms.

People without a specific learning disability may appear to be suffering from it. Sometimes a person with a severe personality disturbance will display symptoms associated with specific learning disability. Sometimes a person suffering from a glandular disturbance will appear to be a specific learning disability case. However, if we wait for help from neurologists, psychologists, psychiatrists, and endocrinologists before doing anything, then nothing is likely to be done. Few school systems offer such services and very few illiterates can afford to pay for such services if they happen to be available. As a rule of thumb, request all possible diagnostic aid. But do not refrain from teaching because of a shortage of diagnostic services! And do not think that a physical or psychological improvement will automatically bring about reading improvement!

Diagnosing a student as a specific learning disability case will do little harm. Diagnosis has but one purpose. That is to indicate the type of treatment needed. While the techniques used in teaching specific learning disability cases are more time consuming, and the results take longer to achieve than with normal cases, the techniques will work with normal people and are especially good with slow learners. If you are in doubt as to the diagnosis, try the adult textbook approach for a few days. If the response is good, then the person does not fit the specific learning disability classification.

Specific learning disability cases should be taught individually or in very small groups. The place of teaching should be quiet and both visual and auditory distractions should be kept to a minimum. The pace should be slow and relaxed. Competitions and other forms of pressure should be avoided, as excitement may block the student's ability to learn. The student should be observed for internal tension

build-ups. When signs of these are observed, some method of relaxation should be introduced.

The V.A.K.T. technique is the most popular method used with specific learning difficulty cases. It may also be used with others, but it is somewhat more time-consuming than regular methods. The V stands for visual, the A stands for auditory, the K stands for kinesthetic (muscular motion sense), and the T stands for tactile. The V.A.K T. technique systematically employs the use of these four senses and thus provides for more sensory input and re-inforcement than do most other methods. Those who use this method should read Remedial Techniques in Basal School Subjects, by Grace Fernald (McGraw-Hill Book Co.), for elaboration on this basic process; (1) Let the person select some words he wants to learn. (2) Say the word and ask the student to tell you how many parts (syllables) it has. (3) Print or write the word in crayon in a five by eight file card or a strip of paper about two inches by ten inches. Say the word and have the student watch as you write and say the word enunciating clearly each syllable. (4) Have the student trace over the word as he says it, enunciating each syllable clearly. (5) When he thinks he can write the word without looking at the copy, have him write the word in crayon. If it is done incorrectly, have him repeat the process (Step 4). (6) Have the student use the word in a written sentence or paragraph. (7) Type the sentences or paragraphs for the student to read at the next session. Have the student file, alphabetically, the words he learns. Review these words with him from time to time. (8) After about 150 words are learned, discard the tracing except with words the student finds difficult to learn. When using this method, the following points should be kept in mind: (1) Finger contact with the print must be rigorously maintained while tracing. (2) The words should always be written as units and never be 'patched up' (Step 5). The word should always be used in a context. (3) The student should not orally spell out the word. (4) The desk should permit free arm movements.

The sand tray technique is one of the many modifications of the basic V.A.K T. approach. It is recommended for the less severe cases. The sand tray method is useful with slow learners as well as specific learning disability cases. Here is the basic procedure. (1) Put about half an inch of sand in a large serving tray. (2) Print the word the pupil is having difficulty in learning on a five by eight card. Have the student watch and listen to you as you write and say the word. (3) Have the student trace over a word as he says it. (4) Ask the student to close his eyes and try to visualize the word as he slowly says it. (5) Remove the copy and have him write the word in the sand. If incorrect, then repeat the process. (6) After a stock of words has been built, eliminate the tracing step. (7) File the words taught and use them for review purposes. When you are sure he will remember a word, then remove it from the file. Gradually reduce the use of this technique as the student builds a larger and larger stock of sight words (those he can instantly name on sight).

The Hegge-Kirk technique has worked well with some cases. It is outlined in Remedial Reading Drills (George Wahr Publishing Co), and this inexpensive book is necessary to the technique. The technique should not be used with persons who have great difficulty in auditory discrimination or who suffer from a significant hearing loss. It is essentially a synthetic phonics approach to teaching word recognition.

The alphabet technique may be used when all else has failed! Observation of many specific learning disability cases revealed that a few taught themselves to read by spelling out the words. Many stroke victims use this method to teach themselves to read again. It is a slow, laborious way to learn and should seldom be used with normal people or with learning disability cases unless the other methods have not proven fruitful. The basic technique has six steps: (1) Select a word to be learned and print it on a file card. (2) Repeat the word several times and then use it in a sentence. (3) Spell out the word slowly and repeat it. (4) Have the student say the word with you several times. (5) Have the student spell out (rhythmically) the word with you several times. (6) Remove the copy and have the student write the word.

After the student has learned fifty to a hundred words with this technique, shift to the Hegge-Kirk technique.

Most adults in fundamental adult education classes do not need the techniques outlined in this chapter. These techniques are for the special few. But the special few must also be taught. If not, their offspring become the special many. As professionals, we must not restrict ourselves to teaching the students who learn, regardless of our efforts. We must attempt to teach all who need or want to learn. We have to have specialized knowledge in order to be truly professional. Stuart's Neurophysiological Insights into Reading (Pacific Books) is recommended to those who want to delve more deeply into the problem of specific learning disability. For those desiring a text dealing with remedial reading generally, Harris' The Improvement of Reading Ability, 4th edition (Longmans, Greene) is one resource. Others are given in Appendix B.

CHAPTER VII

TECHNIQUES FOR THE INTRODUCTORY STAGE

People at the introductory stage of adult literacy are often suspicious of the motives of those who want to help them. They tend to live in sub-cultures on the fringe of the Great Society. Some have had no formal contact with school and most of those who have had some formal education have found it a painful experience. Many are ashamed to admit they cannot read and they have learned numerous ways of hiding their illiteracy. Sometimes,in order to hold their jobs, they have to pretend to be able to read. Many an employer has workers who are completely illiterate; but these illiterates are unknown to him! Educators involved in adult basic education must be concerned with both the identification of the illiterate and with his recruitment for classes.

There are many sources of help in locating and recruiting students at the introductory stage. Teachers will help in identifying illiterate parents. Health and welfare agencies always cooperate in both the identification and recruitment of students. Mass media such as radio and television generally will provide publicity, and adult students already in class will provide leads to others in need of help. A master plan involving many people should be drawn up. The plan should involve people who know the poverty community and who have personal contacts within it.

To do an effective job of recruitment, teachers must know their community. A few of the things they should know are: (1) The total population and the populations of ethnic groups. (2) The number of unemployed and the reasons for the unemployment. (3) The number and average size of families with an income of less than $3000. (4) The industries in the community. (5) The economic outlook for the community. (6) The community power structure. (7) The community poverty pockets. (8) The public health and welfare services. (9) The crime rate and the types of criminal acts most frequently committed. (10) The government agencies and services. (11) The social, professional, and occupational groups. (12) The religious life of the community. (13) The recreational facilities of the community. There are of course other aspects which should be known.

There are sources of information about most aspects of most communities. Information on housing can be obtained from the U. S. Census of Housing and from the City Building Inspector. Information about community health and welfare services can be obtained from the County Health Department and public welfare workers. Other sources of information about the community include: local newspaper files, local chamber of commerce, police department, City Manager's Office,

State Board of Health, local courts, local charity organizations, local ministerial association, school teachers and principals, welfare workers, employment agencies, and local medical society. Bulletin 71F-1, An Outline of a Community Survey for Program Planning in Adult Education, can be obtained from the Florida State Department of Education, Tallahassee, Florida. It is a most useful document.

Merely informing illiterates about the program will do little good. Many literacy campaigns have been conducted in this country. Perhaps the most successful have been those conducted in prisons! There, both the prison officials and the inmates attack the problem in a non-emotional fashion. Goals are set and a plan is devised to meet those goals. Neither the prison officials or the inmates need to be whipped to an emotional frenzy in order to see the social and personal rewards.

Most literacy campaigns are relatively short term projects highly charged with emotion. Energies and interests are expended in a short period. Soon the problem is forgotten again by most people. Agencies forget to refer to the adult educator the illiterates they have contacted. Ministers and church ladies lose their momentum. And even public school teachers neglect to make the personal contact and exert the personal persuasion that is required! Crash campaigns generally crash!

Teachers in adult basic education should be experts in the recruitment of students. Time should be spent in learning about the community and in learning techniques for the identification and recruitment of students. Time should also be provided for teachers to go out and make the necessary contacts with potential students. A teacher who lacks the ability to recruit students may also lack the ability to do a good job of teaching them. The ability to recruit is hardly dissimilar from the ability to hold students once recruited.

The Chapter, Assessing for Instruction, gave some general principles of testing. These will not be reviewed here but should be referred to when planning the testing program for introductory stage classes and before giving an Informal Reading Inventory or interpreting the results of tests. The testing program should include: (1) An Informal Reading Inventory. (2) An oral reading test such as The Gilmore Oral Reading Test (Psychological Corporation), Gray Oral Reading Test (Bobbs-Merrill), or Durrell Analysis of Reading Difficulty (Psychological Corporation). (3) A standardized silent reading test such as the Gray-Votaw-Rogers Primary Test (Steck), Stanford Achievement Test, Primary I (Harcourt, Brace, and World), or California Reading Test, Upper Primary (California Test Bureau).

Several forms of the silent reading tests should be available. Diagnosis and progress reports should be based upon an interpretation

of the varying results obtained from the Informal Reading Inventory, the oral reading tests, and the silent reading tests.

Teaching adults at the introductory stage is quite different from teaching children at the same stage. Few of them need an extensive readiness program, although some work in sound discrimination (hearing likenesses in fan and Dan, hearing differences in leaf and leave) may be called for. Illiterate adults know the meanings of the words to be recognized, generally have better visual and auditory memories than do children, and their visual and auditory perceptual abilities are usually far better developed. Except for the specific learning disability cases, their abilities are so far in advance of young children that most teachers new to literacy education are amazed at their progress.

Instructional techniques at this stage can be broken down into two main groups. One set builds the whole from its parts while the other focuses attention on the whole and later analyzes the parts. Rarely does a competent teacher restrict himself to one set of techniques except perhaps in the very early phases of the training. Studies of perception disclose that people fall into two main groups in terms of how they organize their perceptual worlds. Some habitually build from the elements of that which they are viewing,while others take in the total picture at a glance. Observation will soon enable you to spot those who will do better with an emphasis on a synthetic (part to whole) approach and those who will learn faster with an emphasis on a global (whole and later analysis of parts) approach.

In practice, you should not restrict yourself to either a synthetic or a global approach with a student. Rather, an eclectic (combination of the two) approach should be used with emphasis given to the one that appears most natural to the student Rigid adherence to one method tends to kill interest and slow down the learning process.

Research shows that many people learn better through an auditory approach than through a visual approach. Since the adult illiterate has had more experience in learning concepts through the auditory approach, it is recommended that much oral reading be done in the early phases of training. However, the oral reading should not be done in front of the class until you are sure that few mistakes will be made. When it is done, it should be on a voluntary basis and have a practical purpose.

The student should generally read a selection to himself before he reads it orally. Do not be concerned if he mumbles the word as he reads 'silently.' As he becomes more and more proficient, the vocalization and lip movements will subside. When doing the 'silent' reading, tell the students to point to any words that give them trouble and tell them those words. Record the troublesome words for later

study. When studying them, ask "What part of the word gave you trouble?" The answers will indicate areas of weakness toward which specific teaching techniques should be directed.

Always set a purpose for the reading. Teach the students to set up a clear reason for reading any selection. They should know in advance why they are doing the reading and what they expect to get out of it. This habit should be established very early for it is essential for comprehending what is read.

Introduce the new words at the beginning of each unit and review words the student had difficulty with in past units. Many, but not all, of the texts for adults give lists of the 'new' words and the order in which they are introduced. In the latter case, go over the material prior to the instructional period and make a list of the words to be checked with the students and taught if necessary. When the student is ready for the reading selection, he should know almost all of the words on sight and he should not have to stop and sound many words. Nor should the reading have to be interrupted for vocabulary study! If much emphasis is given to the study of words during the reading period, the individual words become the center of attention rather than acting as vehicles for the transmission of ideas.

In introducing new words, present them first in an oral context. Then present them in a written context that can carry a message. Read the written context so that students learn how the word sounds in context. Later, if necessary, work with the word in isolation, in phrases, and in other sentences. Teach, and have the student apply the various word attack skills that are appropriate prior to doing the reading. Then observe his reading to see if he uses those skills. Note his weaknesses and provide corrective work in those areas at the beginning of the next session. Techniques for developing word attack skills include the use of the picture clue, the configuration clue, the phonics clue, the dictionary clue, and the context clue.

SOME TECHNIQUES FOR DEVELOPING RECOGNITION VOCABULARY

These techniques are useful in teaching students to recognize words already in their speaking and listening vocabularies. The order of listing is arbitrary.

1. Put two similar appearing words on flash cards mixed in with flash cards that have two words that are the same. Expose very briefly and ask if the words are the same or different.

   WHAT WHEN THAT THAT WHITE WHICH

2. Ask the students to underline new words in their texts as you read them from a list.

This book is about my country.
My country is the United States of America.
I am a citizen of the United States of America.

3. Make up picture-vocabulary words for self-instruction. Print the word under the picture and on the back.

Front	Back
The word	The picture

4. Ask the student to underline the word in each row that does not fit.

Tame	Fame	Time	Same	Lame
Will	Bill	Hill	Till	Hall
Hat	Bat	Cat	Sit	Mat

5. Ask groups of students to make up stories using the new words. Have the stories typed up and passed out.

Today we took a trip to the country. It began to rain. We got all wet. The man that said we should take a trip to the country was all wet!

6. Produce with the students a one-page weekly newspaper. Have it dittoed and passed out.

7. Have the students fill in the missing word.

Today we took a trip to the _____. It began to _____. We all got _____.

8. Have the students fill in the missing word parts.

John want_ _ to go. But his mother would not let him Lat_ _ she change_ her mind. But it was too late.

9. Have the students make up sentences using alliteration.

Big bad Billy butts.
Silly Sally sits sometimes.
Penny pats pillows.

10. Have the student underline word endings.

helping flying driver changed lately oldest

11. Ask the students to tell you how many parts (syllables) each new word has after you pronounce it.

12. Have the students substitute various vowels in a word to make new words.

Chap Ch_p Ch_p Fan F_n F_n

13. Label the various objects in the room.

14. Ask the students to underline words beginning with the same sound.

Brown Trip Brain Brow Brim

15. Ask the students to make new words by adding consonants.

Bar _ar _ar _ar _ar

16. Ask the students to identify the short vowel sound in words by writing the sign over the vowel.

Hen Give Tot Must Cat Thin

17. Ask the students to identify the long vowel sound in words by writing the sign over the vowel.

Tape High Day Use Most Be Sky

18. Have the students underline the prefixes in words.

Unable Nonstop Mishap Infield Outfield Undertow

19. Have the students underline the suffixes in words.

Careless Fielder Happily Happiness Commonly

20. Have the students underline roots in words.

Helper Unpleasing Triangle Intake Bypass

21. Have the students form possessives by adding an apostrophe and s or just an apostrophe.

Bob's Children___ Father___ Mice___ Paul___

22. Show word cards rapidly. Students number a dittoed sheet of words in order that the word cards are shown.

23. Write a group story. Everyone in turn reads the story silently, adds his own sentence, and hands the story on to the next reader-writer.

24. Make up and ditto simple crossword puzzles involving words recently taught.

25. Line the bottom of a large box with white paper. Turn the box on its side. Allow small groups to show (and read captions) filmstrips against the white back of the box.

26. Encourage the checking-out of children's books for "reading to your children (brothers, nieces, neighbor's child)."

SOME TECHNIQUES FOR DEVELOPING COMPREHENSION

The key to building comprehension is questioning. Students learn to seek certain understandings by the type of question asked. Unfortunately, much of the material prepared for readers at the first three stages of reading contains questions that deal only with literal meaning. This helps little in developing mature readers or mature thinkers. It is therefore necessary for the teacher to devise questions to promote the higher thinking skills. If the teacher habituates the student to look for answers for several different types of questions, then the student will learn to read the same type of material for different levels of comprehension.

Students should be taught to seek out and think out the answers to three different types of questions. This is vital to the development of adequate comprehension. First, the students should learn to deal with questions of direct reference. The answers to this type question are found directly in the textual material and are stated in the same words as used in the text. For example: Where did John go? In the text is printed, "John went to Miami to visit his parents." Miami, of course, is the answer Second, students must learn to deal with questions of indirect reference. The answers to these questions may be found in the text in slightly different words from those in the questions. For example: Was John brave? In the text we find, "John courageously faced the consequences." Thus, we know the answer to be yes. Third, students must learn to deal with questions that can only be answered by drawing inferences. These are answered by deriving ideas not stated in the selection, but for which the selection provides a sound basis for inferring such answers. The third type of questioning is necessary for the development of mature readers. Other techniques for improving comprehension are given throughout this book. However, the real key to developing power in reading is facility in answering the third type of question. Training in doing so can begin at the introductory level beginning with easy inferences.

1. Change the punctuation in a paragraph and have the students note how the meaning is changed.

2. Ask the students to find words in the story that tell where, when, who, etc.

3. Give the students sentences from a paragraph and ask them to arrange them so that they make sense.

4. Have the students tell about the order of occurrences.

5. Have the students summarize a story in one sentence.

6. Have the students list the characters of a story in order of importance.

7. Have the students make up several titles for the same story.

8. Have the students pick out the most important sentence in a paragraph.

9. Have the students underline the key words in directions.

10. Have the students paraphrase directions.

11. Ask the students to complete an incomplete story.

12. Have the students predict how a story will end.

13. Have the students draw conclusions from what they have read.

14. Have the students evaluate the actions of characters in the story.

15. Have the students interpret metaphorical language.

16. Ask the students to restate dialogue in their own words.

17. Allow the students to dramatize story segments.

18. Require students to outline a selection.

19. Choose pronouns in a paragraph. Ask students to name the nouns to which each relates.

SELECTING INSTRUCTIONAL MATERIALS

Materials selection at the introductory stage is more troublesome than at other literacy stages. So little of the material available is first class that the range of choice is rather narrow. Then, too, some materials are estimated by publishers to be at a very low grade level when in actuality they are much more difficult. This makes it necessary for the educator to objectively determine the readability level of the materials himself. Fortunately, this is not hard to do.

Readability of books, articles, test items, or other writings refers to the degree of ease of reading. The most important factors utilized by readability formulas are word difficulty, as judged by frequency of usage in various types of writing, and sentence length. Other factors that affect reading ease are number of different words used, density of ideas, abstractness of ideas, size of print and leading (amount of white space between lines).

Two easy formulas to use with introductory stage materials are the Graded Reading Difficulty Work Sheet (Garrard Press) and the Smith-Wheeler Readability Formula (Reading Clinic, Florida State University). After a little practice with these formulas, the reading grade level of a book or selection can be determined in about ten minutes. With experience, the grade level or difficulty can be estimated adequately without applying formulae. Once determined, the level should be marked in the book in code.

All classroom library books should be coded according to reading level. They should also be shelved according to level so that the teacher can guide the students in self-selection within their band of reading ability. One code that has worked well is to put the reading grade level of the book as the second number of a four-number series. For example: A book with a readability level of grade two might be coded 9271. A book with a readability level of grade three might be coded 7391. Many published materials use a color code.

At the introductory level factors other than readability should be appraised. Instructional materials should use fourteen point or larger print (a point is 1/72 of an inch). The binding should be inconspicuous. Illustrations should be adult. Vocabulary should be controlled so that no more than three to five words per hundred are new to the reader. The sentence length should be reasonable. Some provision should be made for drill or repetition. Units should be related in content and allow for expansion into projects or research. Books should be sufficiently long to allow for adequate repetition of words, whether they contain one story or many. Of course, it is taken for granted that the books deal with subjects and problems of concern to adults. Unfortunately, few books written for adult basic education meet these criteria. Even the most popular ones progress from a

difficulty level of grade one to a readability level of grade four in a few hundred heavily illustrated pages or less. None provide for sufficient practice within a given reading grade level. To meet the needs of your classes, you will have to rely in part on individualized reading, in part on the experience method, and in part upon materials devised by yourself.

Undercutting is frequently advisable in selecting materials. Undercutting means choosing materials at or below the independent level of the student for his initial instruction. Adults needing basic reading instruction are very apt to be doubtful of their ability to learn to read. By undercutting, one provides immediate success and encouragement for these students.

WRITING MATERIALS FOR THE INTRODUCTORY STAGE

It may be necessary to prepare supplementary materials. You may even want to develop a basic text slanted toward the particular group with which you work. The following principles will help with either task: (1) Clearly outline the objectives. (2) Keep in mind the objectives of the students and the thinking levels, in terms of abstractness, at which they habitually operate. (3) Try to meet concrete needs of the student. Write about areas touching on his basic and immediate needs right from the beginning. (4) Relate the subject matter to the student's social groups and economic aspirations. (5) Try to maintain an informal style and introduce conversation as early as feasible. (6) Write what you have to say in a natural style and later reduce the readability by cutting the sentence length and substituting easy words for hard ones. (7) Use a word list such as The Teacher's Word Book of 30,000 Words (Bureau of Publications, Teachers College, Columbia University) or A Core Vocabulary (Educational Developmental Laboratories). The list will indicate the grade level of words and provide a source of words which can be used to substitute for harder words. (8) Vary the length of sentences and paragraphs. (9) Use non-glare paper and 14 point or preferably larger print. (10) Check the material for readability by applying a readability formula. (11) Try the materials on adults whose reading level is known. (12) Revise the materials in accord with the results of the try-out with the students.

It will be wise to cut down the readability of some materials so that adults at the introductory level can read them. When cutting others' writing, be sure that you do not violate the copyright laws! It is relatively safe to use materials available from the United States Government Printing Office. These are not usually copyrighted. Most newspapers will grant permission to use their articles. Many magazines will also cooperate in your venture. Another caution must be mentioned. The interest of any selection can be killed by too much cutting.

The basic problem in cutting the level of difficulty is to maintain an interesting style while reducing vocabulary difficulty, sentence length, and paragraph length. It is extremely difficult to cut readability to the first grade level unless one is a very highly skilled person. It is easier to cut to the second grade level and it is not difficult at all to reduce most articles to a third or fourth grade level of readability.

After you have completed the first difficulty-cutting, apply a readability formula to the results. Garrard Press publishes The Graded Reading Difficulty Work Sheet which will prove of great value here for it provides a list of easy words which might be substituted for harder ones. It will also give an indication as to whether the sentence length should be reduced and whether or not more variation of sentence lengths should be attempted. It can be used to check the balance between sentence length and vocabulary difficulty.

The annotated bibliography in Chapter XI gives a list of materials acceptable to adult students. At the time this book went to press, many companies whose addresses are given in Appendix A were preparing new materials for adults at the introductory stage. Contact the local representative of these companies and ask him to inform you of pertinent publications. You will also want to stay alert for U. S. Government Publications. The Office of Education is preparing new materials for adult basic education programs and for teaching immigrants who are working toward gaining citizenship. The government can be a fine source of inexpensive materials for supplementary work, but often the quality is below that of commercial publishers. It also does not offer the services that commercial publishers do for many of them will provide consultation and demonstration services at no fee.

CHAPTER VIII

TECHNIQUES AND MATERIALS FOR THE ELEMENTARY STAGE

Millions of adults have reading skills that are comparable to those of children in grades four, five and six. These people know the great majority of the 1000 most frequently used words. They know most of the running words in the average book, magazine article, and newspaper. They know most of the words in this paragraph! But to gain meaning from adult level materials, they need to develop the ability to instantly recognize a stock of thousands of less frequently used words. At this point in their reading development, students need to develop greater meaning vocabularies, study type reading skills, and critical reading ability. They need to develop fluency and versatility in reading.

If students are brought to this stage of reading competency and then abandoned, they will often regress to complete illiteracy. In the past, most literacy campaigns stopped before students completed the elementary stage. Moreover, some adult schools provided training only to the elementary stage. Educationally, this was a great mistake. It resulted in personal disasters and failed to relieve the economic burden of the sponsoring communities.

Some of the techniques for contacting students at the introductory stage are appropriate with this group. However, the appeals should be more subtle. Some of these people consider themselves adequate readers. It offends them to be told that they cannot read on an adult level. By suggesting that they can increase their reading speed and their reading ability in vocationally oriented materials, these students can be recruited. The approach must be positive. It must protect the ego of the prospective students.

Employers can help to recruit students by issuing house organs (company newspapers) written in simple language. These can describe special courses for "slow" or "careless" readers. They can point out the increased reading demands upon various types of workers. Many industries sponsor their own reading programs.

Employment agencies can help to recruit by pointing out opportunities and the reading ability needed to take advantage of them. They can also make known the existence of vocational re-training programs where fundamental education skills are improved while students gain marketable skills. United States Employment Offices now have short reading tests available for their own administration.

Teaching procedures at this stage will probably involve less use of the textbook approach and of the experience method than they did at the introductory level. Here, individualized reading may be the basic

design of the program. Attention must be devoted to some of the vocationally oriented reading which the student needs and wants to do. At this stage, it is often well for the teacher to make available materials which deal with the various occupations. He may have to write them himself. He may also wish to develop a classroom newspaper and to simplify some books used in the vocational training.

Much independent reading should take place at this stage. A part of each instructional meeting should be set aside for independent reading. Students should be encouraged and guided in selecting books. They should be encouraged to check them out for informational or recreational reading. No outside reading or homework should be required. Written book reports, except when volunteered, are taboo. Oral reports, such as sharing of exciting or favorite events from readings, should be encouraged.

SOME TECHNIQUES FOR DEVELOPING VOCABULARY

1. Teach the students to use the pronunciation key in the dictionary.

2. Teach the students to use the guide words in the dictionary.

3. Teach the students to use the context clue by using a nonsense word in a paragraph and having the students decide what it means.

4. Ask the students to collect special words concerned with their occupations.

5. Make up exercises using homonyms.

6. Have the students list several definitions for the same word.

run: to race	run: a small stream
run: a route	run: a point

7. Have the students find words that change meaning when the accent is changed.

Desert	Record	Address

8. Have the students spot metaphors in sentences you give them.

Leaped. His heart leaped high. His imagination leaped.

9. Ask the students to underline the synonyms.

   Bad: Evil Poor Wicked Fear War

10. Tell the students to underline the antonyms.

    Calm: Agitated Ruffled Smooth Angry

11. Have the students change the prefix of a word to form a new word.

Inactive	Misuse	Reserve	Transmit
Overactive	Disuse	Conserve	Remit

12. Have the students select the best meaning for a word given in a context.

    He told lies, was lazy, and beat his wife. He was really a nice person!

13. Encourage the students to keep vocabulary notebooks.

14. Provide the students with words to be classified: Automative, Electric, Clerical.

    copier, bulb, horn, wheel, tire, wire, switch, carburetor, file, desk.

SOME TECHNIQUES FOR DEVELOPING COMPREHENSION

Comprehension relates to both types of comprehension and level of comprehension. Type of comprehension refers to the ability to grasp main ideas, recognize major and minor details, follow directions, and so forth. Level of comprehension refers to the comparative difficulty of the material dealt with. For example, can the reader get the main idea in most grade level three materials? In most grade level four materials? Does he have difficulty recognizing and organizing details at the grade five level?

As the reading difficulty is increased, the ideas presented tend to become more abstract. The depth of meaning involves more and more the use of inferences. A student should not be advanced from one readability level to another until he has developed the ability to deal adequately with that level of abstractness. Too often, depth work in comprehension is ignored as teachers fall into the trap of thinking a person can read well merely because he says the words on the page.

1. Delete every tenth or fifteenth word in a paragraph and have the students fill in the missing words.

2. Begin a story and have the students complete it.

3. Give the students a list of book titles and ask them to classify them as fiction and nonfiction.

4. Have the students make up sub-heads for a nonfiction selection.

5. Give the students questions and ask them to skim to find the answers. Set very short time limits.

6. Have the students read the first and last paragraphs of an article and tell what they think it's about.

7. Have the students keep a record of the timed reading exercise you give weekly.

8. Have the students turn sub-heads into questions and read to answer the question.

9. Give the students a problem and ask them to skim to find only the answer to the problem.

10. Have the students use the index of a book to find answers to questions.

11. Make available different types of graphs and teach the students how to read them.

12. Have the students habitually look up the copyright dates of the books they read. Stimulate the students to discuss the dating of information.

13. Make up two different accounts of the same event and have the students discuss the differences between the accounts.

14. Have the students outline a selection by devising sub-heads.

15. Have the students make up different endings for the same story.

16. Pass out some cartoons and ask the students to write captions for them.

17. Ask the students how they think a character in a story might feel about something.

18. Encourage students to find word meanings appropriate to story context.

19. Have the students delete the emotional words in a slanted article and discuss how they affect comprehension.

20. Encourage the prediction of story content from the table of contents.

CHAPTER IX

TECHNIQUES AND MATERIALS FOR THE INTERMEDIATE STAGE

The big task at the intermediate stage is to develop fluency in reading. By the time a person has attained this stage, he has developed a reading vocabulary of many thousands of words. He has been introduced to most of the reading skills. Emphasis here is on widening reading experiences, advancing critical reading skills, stimulating the seeking of depth of meaning, improving speed of reading, and enhancing the use of reading as a tool for further learning.

Most people who attain this stage can struggle through materials written for literate adults. However, the struggle is so great that reading in those materials is apt to be avoided. It is at this stage that the student is given the extra help needed to make him truly literate. Here, the students gain the polish needed for reading newspapers with ease and enjoying magazines. Of course, stress on study type reading is continued. This stress becomes specific as a person becomes more expert in a vocation or profession. The specificity of skills to employment and social-cultural setting increases through the developmental stage.

Teaching at this stage should be highly individualized. Students should be encouraged to pursue special interests. They should gain familiarity with library resources and be encouraged to bring to class materials dealing with their interest areas.

At this stage, students should participate in some large group, small group, and individualized activities. Grouping should be flexible and purposeful. Some grouping may be structured according to reading grade level. Some may be set up to meet specific comprehension or vocabulary needs. And some grouping may be done for research or interest purposes. Students should have experience in different groups made up of different persons.

The range of difference in reading ability is less at the intermediate stage than at the introductory and elementary stages. The difference between a person reading on the seventh grade level and one reading on the eighth grade level is much less than that between a person reading on the third grade level and one reading on the fourth grade level. Thus, it is possible to make more effective use of instruction aimed at the entire class as a group. It is also easier to write things that the entire class can read profitably.

The restriction of range at the intermediate stage makes it feasible to consider the use of a package program involving mechanical aids. One such program (E.D.L.) uses the Controlled Reader Jr. It comes well supplied with filmed materials and is quite effective with individuals

and small groups. The Tach-X (E.D.L.) affords individual word recognition training and the Skimmer (E.D.L.) is an effective instrument for increasing reading speed. The S.R.A. Reading Accelerator (Science Research Associates) and the Rateometer (Audio-Visual Research) are helpful instruments for individual use in improving reading speed. These machines and others on the market are helpful, especially so for student motivation. They should be purchased only after you are well supplied with materials for instruction and independent reading.

You will probably want to simplify some materials for students at this level. The general ideas set forth in the Chapter on the introductory level will not hold here. However, at this level ten point type is appropriate. Either the Dale-Chall Readability Formula (A Formula for Predicting Readability, Bureau of Educational Research, Ohio State University) or the Flesch Formula (Art of Readable Writing, Harper and Brothers) should be helpful in achieving the desired degree of simplicity. These formulas may also be used to estimate the readability levels of library books and instructional materials.

SOME TECHNIQUES FOR DEVELOPING VOCABULARY

Many of the techniques suggested for the introductory and elementary stages can be used with some modification at this stage. The vocabulary notebook will prove most helpful and it is hoped that more and more stress will be placed upon vocabulary specific to the students'vocational and avocational interests.

1. Have the students look up new words they encounter in their texts. Have them write the meanings on the page margins.

2. Give the students a brief list of Latin and Greek roots. Ask them to collect words with those roots in them, and attempt to use them.

3. Ask the students to collect foreign words and phrases that they come across and use these for some class discussions.

4. Relate metaphors and ask the students to interpret them.

5. Ask the students to bring in unusual metaphors and discuss them.

6. Encourage the students to identify words that signal when a change of the direction of thought is coming,

when an important point is to be made, when a conclusion is to be stated, etc. Some signal words are: However, Hence, Therefore, Yet, Such as, Notable, Nevertheless, Notwithstanding.

7. Invent analogies such as "Magnanimous is to generous as prudish is to _____," or "Animal is to dog as plant is to _____."

8. Discuss qualifying words and how they get their meanings from the context. Is a loss of $2,000 much? For whom? etc. What do the words "start at" mean in respect to prices?

9. Have the students write brief stories using five different meanings for such words as bear, bank, train, and plant.

10. Have the students give one word which best describes the character of Lincoln, Kennedy, Churchill, etc.

11. Time students' efforts at written word-association games.

12. Develop easy crossword puzzles.

13. Encourage students' interest in Scrabble, Hangman's Noose, Ghost, and other word games.

14. Encourage (by creating some yourself) jokes and puns playing upon multiple word meanings.

15. Challenge students with written and spoken tongue-twisters. One example is, "Say 'Rubber baby buggy bumper' ten times rapidly." Encourage students to write their own for later group sharing.

<u>As the student prepares to operate at a truly adult literacy level, more and more abstract thinking is demanded of him</u>. He learns to recognize subtle devices intended to persuade him or delude him. He learns to appreciate allusions, irony, and various other literacy devices. He learns to recognize his preconceptions that affect his thinking in different areas. He recognizes strengths and weaknesses in his background of information and uses reading to strengthen those areas that are weak. Reading at this stage is used as one means of developing the student's general thinking ability.

Try these exercises:

1. Cut up a selection which the author has written in chronological order. Have the students arrange the paragraphs in the correct order.

2. Select some paragraphs that use an inductive writing approach. Mix up the sentences and ask the students to arrange the sentences in the right order.

3. Follow the same procedure with a paragraph that uses the deductive approach.

4. Teach the students to recognize and question the premises in reasoning. (Test Lessons in Reading-Reasoning, Bureau of Publications, Teachers College, Columbia University) is a good vehicle for this.

5. Have the students read selections to determine cause and effects.

6. Have the students compare two editorials on the same subject but from two different points of view.

7. Have the students read a selection and determine the author's opinion and his reasons for writing.

8. Find some examples of paragraphs where the author implies a question and then answers it. Have the students find the implied questions and evaluate the author's answer to it.

9. Have the students make a list of facts and opinions taken from the same selection.

10. Teach the students to determine the moral of a story.

11. Ask the students to bring in misleading headlines from newspapers. Then aid them in developing better ones.

12. Have the students list, in order of importance, the news stories on the front page of a newspaper.

13. Teach the students to underline main ideas in red pencil and supporting ideas in blue. Then discuss relationships between these ideas.

14. Have the students answer the questions, "What is the author talking about? What does he say about it?" in one compound sentence.

15. Ask students to read news articles from the fourth paragraph to their conclusions, before stating what the main ideas must be. Then the main idea may be checked by reading the first three paragraphs.

TESTING AT THE INTERMEDIATE STAGE

The oral reading tests and the Informal Reading Inventory suggested for the previous stages are still appropriate here. The Gray-Votaw-Rogers-Advanced Test, Stanford Reading Tests, Advanced, California Reading Test, Jr. High, and the Gates Reading Survey, (Bureau of Publications, Teachers College, Columbia University Press) are all appropriate tests of silent reading ability. At this level, the scores on the silent reading tests are very likely to give the true instructional level. However, previous recommendations for test interpretation should still be heeded.

CHAPTER X

READING IN SPECIFIC SUBJECT MATTER AREAS

The curriculum of adult basic education is built around three broad areas. These are: (1) The communications skills of reading, writing, speaking, listening, and spelling. (2) The mathematical skills as needed for general adult problems such as consumer education, family budgeting and vocational training, and (3) General knowledge such as citizenship education, general scientific concepts and social problems.

Insofar as reading is used as a tool for learning within his subject matter area, every teacher is a reading teacher. Every teacher bears some responsibility for developing the reading power and skills of his students. There are some general study-type reading skills which should be developed in the reading and communication skills classes. However, the development of subject area vocabulary and subject area reading skills is most effectively carried on in teaching sessions dealing with the specific subjects.

There is a core of general reading skills needed in all subject matter reading. Among these are the ability to find the main idea, the ability to organize ideas, the ability to interpret information, the ability to draw conclusions and make inferences, and the ability to recognize and utilize rhetorical devices. These general reading skills need to be supplemented in the subject matter areas with the specific demands made by each area.

1. Teach students the SQ3R[1] study method.

2. Encourage students to work out rigid study procedures, including time, place and subject to be studied.

3. Require the students to outline one of your lectures, wait a time period of approximately two weeks, have the students bring in their notes on the aforementioned lecture, and spend 15 minutes reviewing these. Then administer a test on that particular lecture. For notes to be effective, the student must learn just how much he requires to bring back the content to him. His notes should be neither more than he needs, nor less. This procedure is worth doing several times.

4. Encourage students to write summaries in the margins of their texts, discourage underlining. Underlining cuts down the leading or wide spaces between lines. The less leading in a book, the less legible and readable the material. Furthermore, in reviewing, the student who

[1]See Francis Robinson, Effective Study Habits (Harper).

comes across the statement in his own words on a topic is far ahead of the student who must re-read the author's words as underlined.

5. Explain to the student the strengths and weaknesses of group study.

   a. The best prepared student in the group benefits more from group study than the poorest prepared one because the better prepared student summarizes faster and re-studies and prepares himself in his efforts to teach the more poorly prepared members of the group.

   b. The questions that members of the group ask each other are not dissimilar from the questions each will be asked by the teacher in the test.

6. Make sure students differentiate between recognition and recall. When one reads a book a second time and finds the material to be familiar, he is recognizing it. A multiple choice test is a type which requires recognition. Only when the student can recall the answer without seeing it first is he prepared to take an essay test or one which requires him to fill in the blanks from memory.

In the General Knowledge curriculum, the reading in the social studies will require the interpretation of maps, charts and diagrams. Spatial concepts will have to be developed in order to deal with geography. Cause and effect relationships must be discerned to gain an understanding of history. Evaluation skills will be needed to appraise the reliability and validity of that which has been read. In addition, knowledge of reference sources and reference use skills applicable to the social studies will be needed. The student should become able to independently extend his knowledge and interests.

Mathematics has its special vocabulary, concepts, and symbols. In mathematics, each symbol is restricted to one meaning. There is little redundancy. Nothing can be skipped. The reading should usually be slow and exacting. The student needs to learn to recognize and deal with a somewhat different sentence structure. This may be a combination of words and symbols or it may be only symbols.

In teaching adults to read mathematics, the initial diagnosis is most important. The learning of new terms and concepts often depends upon the knowing and understanding of a lower order of concepts. If a step in the mathematical continuim has been missed, it is vital that

the student be taken back to that step and retaught. A sage rule to follow is to administer an informal diagnostic test of vocabulary and concepts from time to time as the student progresses through the course.

The physical sciences also have their own special vocabularies. In developing his skills in this area, the student learns to: (1) Identify the problem under discussion and the hypotheses presented. (2) Look for the information used to support the hypotheses. (3) Evaluate hypotheses. (4) Evaluate the results of the investigation. He should also learn to identify an inductive approach and a deductive approach. He should be taught to distinguish between laws, theories and hypotheses. He should practice identifying the theories underlying scientific processes.

Some of the specific techniques that follow can be applied in several subject matter areas. Although their usefulness appears greatest under social studies or science, they are not necessarily less useful in other areas. Furthermore, many of the more general techniques mentioned in other chapters can also be applied in the specific subject matter areas.

SOME COMPREHENSION TECHNIQUES FOR USE IN TEACHING READING IN THE CONTENT FIELDS

Social Studies

1. Have the students answer the question, "What has led up to this event?"

2. Ask the students to try to visualize features in the landscape as indicated by maps.

3. Lead the students in making different types of graphs to illustrate concepts or information given in the text.

4. Procure original news articles of twenty years ago. Duplicate these. Allow students to compare these with their history texts.

5. Give the students news stories without headlines. Making up headlines is then assigned.

6. When studying current events in the news, ask the students to write their predictions of what will happen. Later have them check their predictions against what actually did happen.

7. When studying about the different peoples of the world, ask the students to look for similarities and differences between different nationalities, races, governments, etc.

8. When reading about forms of transportation, assign students to classify the transportation forms according to speed, cost, convenience, packaging, etc.

9. After studying the Constitution, ask such questions as, "Why is the Constitution so unhappy?" or, "If the Bill of Rights could speak, what would it say to us?"

10. Help the students develop their own current events newspaper.

11. Assign students to select stories from a period in history and write them up as newspaper stories.

12. Have the students classify the news stories according to topics, importance, etc.

13. Gather travel folders from travel agencies and help students plan an ideal two-week trip.

14. Provide road maps. Allow the students to plan ways of going from one city to another. They should weigh the various factors involved in the selection of the route.

15. Have the students collect metaphors most often used in geography, history and government.

16. Encourage groups of students to map the neighborhood or city.

17. Assign a group to the task of creating a pronouncing glossary of social studies terms.

Mathematics

1. Teach the students to seek an overview of the problem and to write this overview in their own words.

2. Have the students arrange the facts of a problem in the proper relationships, and re-read the problem to see if the organization of the facts makes sense.

3. Have the students practice the following steps in reading problems: (1) Listing what the problems ask for.

(2) Listing the information set forth in the problem. (3) Noting what computations are needed. (4) Telling what the order of computations should be, and (5) Telling how the answer can be tested.

4. Have the students collect terms such as average, mean, square, etc. and note their special mathematical meanings. These may be compiled in a class mathematical dictionary.

5. Put simple formulas on the board and have the students read them orally.

6. Have the students use mathematical symbols to give you directions or to tell you about something.

7. Give the students practice in converting mathematical symbols into words and vice versa.

8. Have the students invent some problems or bring in some problems that reflect real life situations.

Science

1. Teach the students to relate relevant facts to the topic headings under which they are placed.

2. Pose the questions, "What questions are raised by the book (article, selection, etc.)?"

3. Have the students read and discuss some theories and propose some of the limitations of each theory.

4. Ask the students to interpret the findings of an experiment in one sentence.

5. Have the students relate the usefulness of the findings of an experiment in one sentence.

6. Provide some biographies for the students to read and list some of the attitudes held by the scientists they have read about.

7. After reading a selection, ask the students to list the events leading up to a scientific discovery.

8. Ask the students to underline qualifying words that limit the application of scientific laws.

9. After the students read some experiments, ask them to number each step in each experiment.

10. Have the students read some biographies of scientists and list some of the ways they discovered and attacked problems.

CHAPTER XI

THE DEVELOPMENTAL STAGE

The objective of the literacy phase of basic adult education is the attainment of the developmental stage. At this stage, the student has attained a level of maturity in reading where he can participate independently in most of the reading activities essential to full participation in a literate society. He has the essential skills and knowledge that provide the means whereby, if so motivated, he can continue to grow on his own. This does not mean that people on this stage cannot profit from more formal instruction in reading. Certainly they can! But wide reading and study in various fields will, in itself, promote further reading growth.

The student who has reached a ninth grade reading ability following a program in basic adult education will have been introduced to such general magazines as Reader's Digest, Look, Life and perhaps even Time, U. S. News and World Report and Newsweek. He will also have been made aware of some general magazines written for men such as True or Sports Afield. The student will have been encouraged to use the local library facilities and classroom usage of the local newspaper will have ingrained the habit of reading a daily newspaper. Further formal education will develop his skills in various subject matter areas. But his big growth at this stage will occur because he reads independently for recreation and for knowledge.

Some students will elect to take a formal course in developmental reading. These are often offered in a high school equivalency program and they are sometimes given for adult high school credit. This type of program often enrolls adults who have completed high school but who feel a need for some more formal work in reading. Ideally, such a course should be offered by all large adult schools.

In many schools there are special developmental reading courses for high school graduates who, after a lapse of time, have decided to go on to college. These people wish to brush up on their reading skills and extend their reading power before entering college. Stress in such courses is on developing depth of vocabulary, study type reading skills, and speed of reading. This type of course is also helpful for those students who wish to take a high school equivalency examination. Often improved reading skills is the key to passing such an examination.

A developmental reading course for adults that has become popular is the course designed for business and professional people who wish formal help in increasing their reading speed. Such a

course is often offered at the adult school or in the junior college. Stress is placed upon speed and upon developing increased fluency in reading business and professional journals and books. Generally, those who enroll in such a course are average or better readers who recognize that with a little help they can develop their skills to a point where they can keep up with the flood of literature that keeps pouring in on them in this age of rapid change. The big problem with this group is developing flexibility for they tend to be one speed readers.

There are a number of self-instruction courses in developmental reading. Those put out by reputable companies have much to commend them. Many take a basically sound approach to the problem. However, there is some quackery in this area and the course material should be examined carefully before recommendations are made. Where fantastic promises are made (whether by those offering self-help courses or by those offering special, sometimes esoteric, courses for a fee), you should check to see if the claims are supported by well-founded university sponsored research. Beward of any course that suggests that people can learn to read (not skim) at rates much above 1000 words per minute. Although leading authorities in reading have heard of such people, they have not been able to find any who could READ at such rates while being observed by such scientific instruments as the Reading Eye (E.D.L.)

Finally, some schools and libraries provide courses such as THE GRFAT BOOKS. These center around the depth reading of classics in various fields. While not listed as developmental reading courses, they are quite effective in developing reading power of adults. However, most people who take such courses are superior readers with superior educational backgrounds. Such courses are not for the average person who is in the earlier phases of developmental reading.

CHAPTER XII

MATERIALS FOR TEACHING READING

Materials appropriate for teaching reading to adults are scattered widely. At the time this bibliography was being prepared, many publishers were reviewing their materials to determine which materials already in production could be properly used with adults. They were also in the process of developing new programs and 1965 had already felt the impact of the stimulation of government funds for adult education. New materials came pouring out of publishing houses and some of it is of very poor quality. Other new materials are excellent. In this chapter, only a selected few of the many resources for teaching reading to adults are listed and annotated. A far more comprehensive annotated bibliography is available from the Adult Section of the Florida State Department of Education, Tallahassee, Florida.

This bibliography is divided into the three stages of adult basic education. These are the Introductory Stage (levels 1-3), the Elementary Stage (levels 4-6), and the Intermediate Stage (levels 7-8). The levels are roughly equivalent to grades. Addresses of publishers are given in Appendix A.

Materials For The Introductory Stage

Adult Reader. Steck Co., 1964, 127 pp.

This workbook is similar to the old Veteran's Reader which has been used for many years. It moves too rapidly and does not reflect the learning that has occurred since the Veteran's Reader was first published. It is adult in appearance, content, and illustrations. It should be supplemented with other materials.

My Country, Revised Edition. Steck Co., 1964, 96 pp.

Very similar to the older edition which has proven to be of value in literacy training. The content is social studies and the appearance is adult. It moves too rapidly and should be supplemented with other materials.

Operation Alphabet Workbook. National Association For Public School Adult Education, 1962, 111 pp.

This workbook is designed to accompany the Operation Alphabet television course, but it may be used independently of the course. Each lesson is self-contained and the vocabulary and rate of introduction

of new words is controlled. It is probably best used as one of a battery of materials. It is designed for adults.

Reader's Digest Adult Series. Reader's Digest, 1964-65, 32 pp. each.

A series of twelve booklets extending from level 1 to level 4. Content, design, and exercises are adult. This series has already proven popular. The twelve booklets,in themselves,are not sufficient to insure mastery of the reading skills at the introductory stage,and should be supplemented with other materials. The teacher's manual,which accompanies the series, is helpful.

Reader's Digest Skill Builder Series. Reader's Digest, 1963, 64 pp. each.

This series extends from level 1 through the intermediate stage. Though designed for children and adolescents, its content, pictures, and exercises are acceptable to adults. The weak link in the series for use with adults is the one written for the very beginning reader.

Reading in High Gear. Science Research Associates, 1965.

This series does not appear to allow for individual differences and suffers from an over-emphasis on phonics. The instructor's manuals are complete but few teachers will follow them in such detail.

SRA Reading Laboratories. Science Research Associates, all relatively new.

Except for Laboratory 1a, the laboratories are acceptable to adults. Each laboratory contains a number of lessons on cards. The lessons are graded in terms of readability and encourage the use of individualized reading and the movement of the students at their own learning rate.

System for Success. Follett Publishing Co., 1964-65.

This is a two book series with accompanying phonics charts. It is designed for adults and the reading material is adult in interest. It includes training in the communication skills and computational skills. Supplementary materials for reenforcement of skills taught is available from Follett. It has been well received by certain groups and is under constant revision to incorporate what has been learned as it is used. The research on its use indicates that it is a sound approach to use with many adults.

Materials For The Elementary Stage

Achieving Reading Skills. Globe Book Co., 1958, 245 pp.

The various reading skills are handled on several levels of readability, ranging in difficulty from grade 3 to grade 6. It has been used extensively with adolescents and adults and is acceptable to them.

The Deep Sea Adventure Series. Harr Wagner Publishing Co., 1962, 84 pp.

This series is designed for adults and adolescents. Format and content are good. The series begins at the third grade level and goes through four. Excellent supplementary materials. Another series also designed for adults is the Morgan Bay Mysteries. Each series consists of four books.

New Rochester Occupational Reading Series. Science Research Associates, 1963, 169 pp.

This series, written on three different readability levels (3, 4, and 5) does not use the same story content as the original Rochester Occupational Reading Series. Each book contains the same stories and thus three different groups can be working on the same content though the readability differs. The accompanying workbooks can be used to build both vocabulary and comprehension skills.

Turner-Livingston Reading Series. Follett Publishing Co., 1964, 48 pp. each.

This well constructed series deals with such topics as citizenship, economics, and the general social studies. It is designed for adults and has proven valuable in adult basic education classes both for developing reading skills and for re-enforcing subject matter learnings. Some of the books in the series are: The Person You Are, The Money You Spend, and The Town You Live In.

Building Reading Power. Charles E. Merrill, 1963.

A laboratory type of material which uses the programmed instruction approach. It was originally devised for use with the culturally deprived adolescent. As with other laboratory type materials, it should be supplemented.

Better Reading. Globe Book Co., 1962, 447 pp.

This is one of the better books for use toward the end of the elementary stage. The exercises in vocabulary and comprehension are

well constructed and the content is acceptable to adults. Very little additional instructional materials will be needed when this book is used as a basal text.

Out of the Past. Children's Press, 1964, 64 pp.

This is one of a series of four books written for use with adults and adolescents. The books are interesting and will be a useful aid in developing study-type reading. Readability level is about 5.

Reading for Meaning. J. B. Lippencott Co., 1962, 72 pp.

A series of workbooks for use in developing comprehension skills. While not designed for adults, the format and content is acceptable to them. Vocabulary development is worked into the selections in an interesting way. The readability levels cover the elementary and intermediate range.

Materials For The Intermediate Stage

American History Study Lessons. Follett Publishing Co., 1964.

These short books make excellent vehicles for teaching adults to read in the social studies area. History concepts are taught in short self-contained units and the units can be used as self-directed learning materials. Follett's Study Lessons on Documents of Freedom are similar to the American History Study Lessons.

Be a Better Reader. Prentice-Hall, 1963, 128 pp. each.

One of a series, the first of which is appropriate to level 7. These are relatively complete basal texts which were developed for use with adolescents. Interest level is high and study type reading skills are stressed. The series extends through the intermediate levels and into the developmental levels.

Help Yourself to Improve Your Reading. Reader's Digest, 1962, 160 pp.

As with other Digest offerings, the material is adult in nature and of high interest level. Vocabulary and comprehension exercises are good and the book may be used as a self-help book.

Modern Reading. Charles E. Merrill Co., 1960.

A three workbook series for developing reading skills at the intermediate and developmental stages. This series has been particularly popular with the older adolescents.

Steps to Better Reading. Harcourt, Brace, and World, 1964, 197 pp.

One of the few really acceptable programmed books for developing vocabulary and for strengthening weak areas in comprehension. Students should be given experiences in programmed materials to prepare themselves for self-study in the future.

Programmed Vocabulary. Appleton-Century Crofts, 1964, 214 pp.

This programmed text is devised to teach the twenty most important prefixes and the fourteen most important roots. Helpful for supplementary independent study.

Reading Skillbook I. American Book Co., 1962, 128 pp.

Covers the water front on terms of the various reading skills treated. Interest level is good and the variety is great. An excellent text to have handy to use with students needing specific help in word attack, word meaning, and comprehension skills.

Standard Test Lessons in Reading, Book E. Bureau of Publications, Teachers College, Columbia University Press, 1961, 78 pp.

This small but valuable book contains 78 high interest level lessons for developing rate and comprehension skills. Each lesson is a test and the student is able to spot weaknesses and he can then learn to adjust his rate to meet the requirements of the material being read.

Test Lessons in Reading-Reasoning. Bureau of Publications, Teachers College, Columbia University Press, 1964, 78 pp.

This text was devised to improve the critical reading and thinking ability of adolescents and adults. The 78 self-contained lessons teach ways of uncovering fallacies in reasoning and give practice in detecting such fallacies.

APPENDIX A

Addresses of Selected Publishers

Allyn and Bacon, Inc.
150 Tremont Street
Boston 11, Massachusetts

American Book Company
55 Fifth Avenue
New York 3, New York

American Guidance Service, Inc.
720 Washington Avenue, S. E.
Minneapolis, Minnesota 55414

Appleton-Century-Crofts, Inc.
35 West 32nd Street
New York 1, New York

A. S. Barnes and Company
11 East 36th Street
New York 16, New York

Audio Visual Research
523 South Plymouth Court
Chicago 5, Illinois

Barnell Loft, Ltd.
111 South Centre Avenue
Rockville Centre, New York

Bobbs-Merrill Company
4300 West 62nd Street
Indianapolis 6, Indiana

Bureau of Publications
Teachers College
Columbia University Press
525 West 120th Street
New York 27, New York

California Test Bureau
Del Monte Research Park
Monterey, California

Arthur C. Croft Publications
100 Garfield Avenue
New London, Connecticut

Thomas Y. Crowell Co.
432 Park Avenue, South
New York 16, New York

Educational Developmental Laboratories, Inc.
Huntington, New York

Follett Publishing Company
1010 West Washington Blvd.
Chicago 7, Illinois

Garrard Press
510 North Hickory Street
Champaign, Illinois

Ginn and Company
Statler Building
Park Square
Boston 17, Massachusetts

Globe Book Company
175 Fifth Avenue
New York 10, New York

Harcourt, Brace, and Company
750 Third Avenue
New York 17, New York

Harper and Row
49 East 33rd Street
New York, New York 10016

Harr Wagner Publishing Co.
609 Mission Street
San Francisco, California
94105

D. C. Heath and Company
285 Columbus Avenue
Boston 16, Massachusetts

Holt, Rinehart and Winston
383 Madison Avenue
New York, New York 10017

Houghton Mifflin Co.
2 Park Street
Boston 7, Massachusetts

Alfred A. Knopf, Inc.
501 Madison Avenue
New York 22, New York

J. B. Lippincott Company
E. Washington Square
Philadelphia 5, Pennsylvania

Little, Brown and Company
34 Beacon Street
Boston 6, Massachusetts

Lyons and Carnahan
407 East 25th Street
Chicago, Illinois

Macmillan Company
60 Fifth Avenue
New York 11, New York

McGraw-Hill Book Company
330 West 42nd Street
New York 36, New York

Charles E. Merrill Books, Inc.
1300 Alum Creek Drive
Columbus, Ohio 43216

William Morrow and Company
424 Park Avenue, South
New York 16, New York

National Association for Public
School Adult Education
National Education Association
1201 16th Street, Northwest
Washington 6, D. C.

Noble and Noble Publishers, Inc.
67 Irving Place
New York 3, New York

Prentice-Hall, Inc.
Route 9, West
Englewood Cliffs, New Jersey

Psychological Corporation
304 East 45th Street
New York 17, New York

Reader's Digest Services, Inc.
Educational Division
Pleasantville, New York

Science Research Associates
259 East Erie Street
Chicago, Illinois 60611

Scott, Foresman and Company
433 East Erie Street
Chicago 11, Illinois

Charles Scribner's Sons
597 Fifth Avenue
New York 17, New York

Steck Company
Box 16
Austin 61, Texas

U. S. Government Printing
Office
Washington 25, D. C.

George Wahr Publishing Co.
316 S. State Street
Ann Arbor, Michigan

Webster Publishing Company
1154 Reco Avenue
St. Louis 26, Missouri

Wheeler Publishing Company
161 East Grand Avenue
Chicago 11, Illinois

APPENDIX B

Some Helpful Books

"Adult Education" Review of Educational Research, Vol. 35, No. 3 (June, 1965), pp. 169-245.

Altick, R. D. Preface to Critical Reading, New York: Holt, Rinehart, and Winston, 1960.

American Newspaper Publishers Foundation. Development Manual for the Newspaper in the Classroom Program. New York: American Newspaper Publishers Foundation, 1964.

Bond, G. L. and Tinker, M. A. Reading Difficulties. New York: Appleton-Century-Crofts, 1957.

Cass, A. W. Adult Elementary Education. New York: Noble and Noble, 1956.

Cofer, Charles N. and Musgrave, Barbara S. Verbal Behavior and Learning: Problems and Processes. New York: McGraw-Hill Book Co., Inc., 1963.

Darley, Frederick L. Diagnosis and Appraisal of Communication Disorders. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1964.

Fernald, G. Remedial Techniques in Basic School Subjects. New York: McGraw-Hill, 1943.

Fries, C. C. Linguistics and Reading. New York: Holt, Rinehart, and Winston, 1963.

Gray, W. S. The Teaching of Reading and Writing. Chicago: Scott, Foresman, and Co., 1956.

Harris, A. J. How to Increase Reading Ability. New York: Longmans, Green and Company, 1961.

Herman, K. Reading Disability: A Medical Study of Word-Blindness and Related Handicaps. Springfield, Ill., Charles C. Thomas Publisher, 1959.

Kolson, C. J. and Kaluger, G. Clinical Aspects of Remedial Reading. Springfield, Ill.: Charles C. Thomas Publisher, 1963.

Kuhlen, Raymond G. (ed.) Psychological Backgrounds of Adult Education. Chicago, Illinois: The Center for the Study of Liberal Education for Adults, 1963.

Laubach, F. C. and Laubach, R. S. Toward World Literacy, Syracuse, N. Y.: Syracuse University Press, 1960.

Lee, D. and Allen, R. V. Learning to Read Through Experience. New York: Appleton-Century-Crofts, 1963.

Lefevre, C. A. Linguistics and the Teaching of Reading. New York: McGraw-Hill, 1964.

Literacy and Basic Elementary Education for Adults: A Selected and Annotated Bibliography. Washington, D. C.: United States Government Printing Office, 1961.

Lorge, Irving, et al. Psychology of Adults. Chicago, Illinois: Adult Education Association of the U.S.A., 1963.

Money, J. (ed.). Reading Disability. Baltimore: John Hopkins Press, 1962.

National Association for Public School Adult Education. When You're Teaching Adults. Washington, D. C.: National Education Association, 1959.

National Association for Public School Adult Education. A Treasury of Techniques for Teaching Adults. Washington, D. C.: National Education Association, 1964.

National Association for Public School Adult Education. How Adults Can Learn More - Faster. Washington, D. C.: National Education Association, 1961.

National Society for the Study of Education. Adult Reading: Fifty-fifth Yearbook, Part II. Chicago: University of Chicago Press, 1956.

Penty, R. C. Reading Ability and High School Drop-Outs. New York: Bureau of Publications, Teachers College, Columbia University Press, 1956.

Roswell, F. and Natchez, G. Reading Disability: Diagnosis and Treatment. New York: Basic Books, 1964.

Simmons, J. S. and Rosenbloom, H. O. Reading Improvement Handbook. Pullman, Washington, 1965.

Smith, E. H. and Smith, M. P. Teaching Reading to Adults, Washington, D. C.: National Association for Public School Adult Education, 1962.

Smith, H. P. and Dechant, E. V. Psychology in Teaching Reading. Englewood Cliffs, N. Y.: Prentice-Hall, 1961.

Spache, G. D. Toward Better Reading. Champaign, Ill.: Garrard Publishing Co., 1963.

Strang, R. Diagnostic Teaching of Reading. New York: McGraw-Hill, 1964.

Stuart, M. Neurophysiological Approaches to Reading. Palo Alto, Cal.: Pacific Books, 1963.

Taylor, E. E. and Frackenpohl, H. A Core Vocabulary, Huntington, N.Y.: Educational Developmental Laboratories, 1960.

Thorndike, E. L. and Lorge, I. Teacher's Word Book of 30,000 Words. New York: Bureau of Publications, Teachers College, Columbia University Press, 1954.

Vernon, M. D. Backwardness in Reading. New York: Cambridge University Press, 1958.

Wallace, Mary C. Literacy Instructor's Handbook. Chicago, Illinois, Follett Publishing Co., 1965.