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Reading

HORIZONS



FALL 1962

Reading **HORIZONS**

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Editorial Comment

In times when great consideration is given to “speed reading,” phonics, individualized instruction, and reading readiness, it may be well to broaden our horizons and view reading in its newer and less trite aspects. Speaking, writing, listening and reading, all forms of communication, have much in common. Learning is *sine qua non*. Mental content is an indispensable factor and motivation is a major requirement. Schools of psychologists from Descartes to Skinner have much to contribute and yet none can speak with unchallenged authority. We need new facts, new ideas, and the ability to draw valid conclusions. Consequently, it is the purpose of this edition of *Reading Horizons* to broaden the concept of reading, an aspect of communication, so as to show its relationship to learning. Reading is more than the sum of its minor parts. It is a way of life throughout the whole world.

Homer L. J. Carter
Editor

A Preliminary Study in Programming Reading for the Mentally Retarded Learner¹

By Dr. Chris Koronakos²

Western Michigan University

Teaching reading to the mentally retarded assumes a major portion of an institution's educational facilities and personnel. The considerable amount of time and effort that are devoted to this one aspect of the child's training reflect the vital character that reading instruction has for his occupational and psychological adjustment. Any increase in our knowledge of the factors and methods that play a role in the teaching process is desirable and much needed.

Recent developments in psychology suggest some new approaches toward increasing efficiency in the educational procedures used in training the mentally retarded learner (2, 3, 4, 5, 6). These developments center around a number of concepts and methods which have evolved in the field of automated teaching. Briefly, automated teaching refers to a philosophy or theory of teaching and to the various instrumentalities in attaining certain stated goals. Essentially, automated teaching methods embody a number of principles which are quite compatible with the general educational procedures and aims currently in use. Perhaps the major differences between the more conventional methods and automated techniques lie primarily in the preparation of the material to be learned, in the methods of presenting that material to the student, and the specific role of the learner in the training process. Among the several working ideas associated with automated teaching are: 1) the preparation and presentation

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1. This investigation was supported by a grant from the National Institute of Mental Health (Grant M2816A) while the author was on the staff of the South Bend Center, Indiana University.
 2. The writer wishes to express his appreciation to Dr. Iona C. Hamlett, Director of Clinical Services, Fort Wayne State School and to her staff for their aid and cooperation in the conduct of this study.

of text materials in discrete programmed steps, 2) the subdivision of course material into ordered progressive units, 3) the active participation of the learner during all phases of the training sequence, and 4) the immediate knowledge of results for the learner for all units of work. In essence the chief goal of this general approach is “. . . an ordered controlled and measurable progression in the learning proficiency and development of the individual student.” (1)

The research to be reported grows out of such a philosophy and from the feeling that the principles of automated teaching can be applied with success to the educational procedures utilized with the mentally retarded. The emphasis in this investigation has not been in the design or implementation of certain technical procedures; instead, interest and effort have been focused on what is considered the more immediate problem, viz. that of analyzing reading in order that eventually this subject matter can be programmed and incorporated into some kind of mechanical device—that is, a teaching machine. The aim has been to develop a body of basic information about reading from which can be derived principles of programming and application of student operated teaching devices.

Subjects: The Subjects that were used in the two experiments to be reported were drawn from the general population residing at the Ft. Wayne State School for the Mentally Retarded at Ft. Wayne, Indiana. Some attempt was made to use individuals who were similar on a number of variables: a) *reading achievement level*—no child was included in the studies whose performance on the WRAT (Wide Range Achievement Test) was above the reading level of 2.0, b) *mental age*—only those children whose scores on a recent administration of the Stanford-Binet (Form L) were within ages 3 to 7, c) *chronological age*—no child above the age of 20 was tested; and d) *clinical classification*—only children who were diagnosed as Familial were used.

Apparatus: Two pieces of equipment of a non-automated nature were used in the testing sessions. Both pieces were designed to be operated by the Experimenter and to function as relatively simple discrimination devices. The apparatuses contained a slot in which the Experimenter could place the visual text material, simple door-type bell buttons which could be pressed when making a response, and red lights which serve as simple reinforcers or rewarding stimuli whenever the learner made the correct response. The Subject was

seated in front of a vertical panel; the Experimenter was situated on the other side of this panel controlling the presentation of the material and activating the reinforcers by manipulating a series of mercury switches. The pieces of equipment will be described separately and in some detail since each was designed to be used under different experimental conditions of training.

Apparatus A: The vertical panel contains four $2\frac{1}{2}$ inch square windows with one window centered above a row of three identical windows. It is through these openings that the subject sees the words and/or pictures. Directly below each of the lower windows there is a 7-watt red colored frosted light bulb set flush in the upright panel.

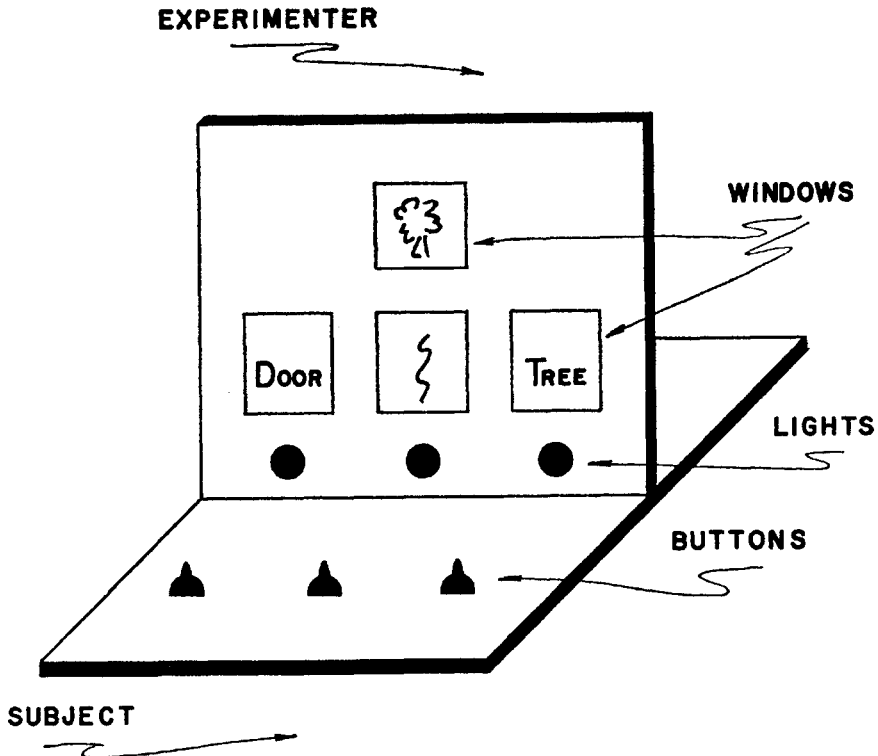


FIGURE I APPARATUS A

These lights are considered red as indicators of appropriate responses and serve as reinforcers. Each light bulb is associated with the window directly above it. The three bell buttons which function as response indicators are set in a line directly below the lights and windows. These controls are imbedded in a smaller horizontal platform. The Experimenter sitting on the opposite side of the partition acts as a human programmer, continually feeding into the apparatus cards containing the material to be learned, controlling which of the lights is to be activated for any particular matching, and recording the errors in the learner's performance.

Apparatus B: This apparatus is a modified version of Apparatus A. It is exceedingly simple in design and operation. As can be

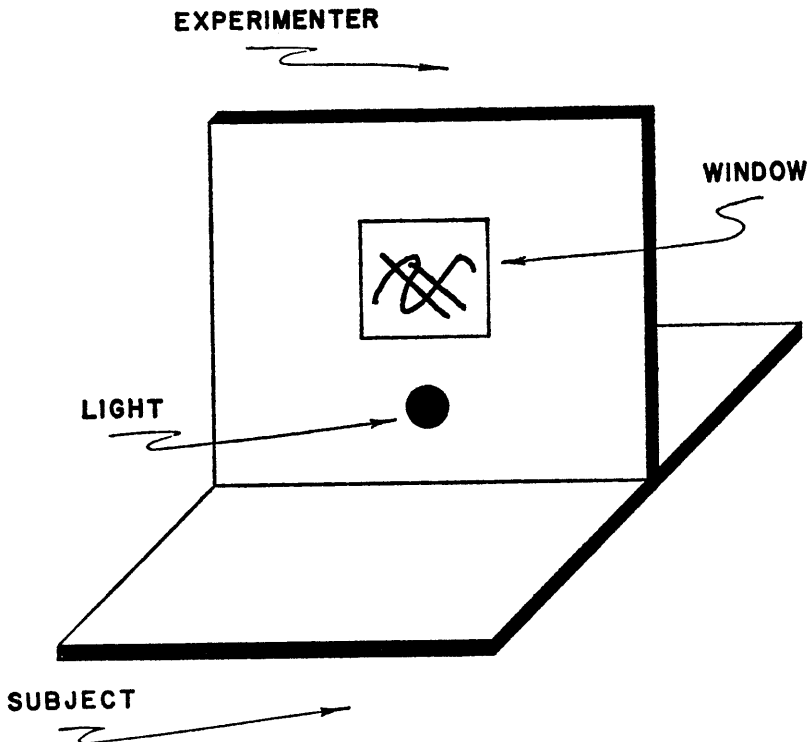


FIGURE 2 APPARATUS B

seen, there is only one window and one light bulb and no response buttons. These design changes were necessary in order to satisfy the requirements established for two of the five conditions of training. As in Apparatus A, there is a vertical panel separating the subject and experimenter. The experimenter manipulates the text material and controls the reinforcing light, while the subject sits before the single opening studying the material. The response in this case is not made by pushing a button but by saying what the stimulus pattern is. If the subject correctly identifies the picture or word, the experimenter flashes the red light.

Program Materials: The program material consisted of a list of 9 relatively simple words and a series of 9 pictures corresponding to the words. The words drawn from Dolch's Basic Reading list of 220 commonest words were as follows: *tree, basket, bell, apple, house, train, door, boat, window*. Selection of the words was made on the basis of a number of criteria: 1) relative length of word—each word contained from 3 to 7 letters, 2) words that could be easily pictured, and 3) words that represented simple object nouns. The corresponding pictures were traced off selected Dolch Picture-Cards and consisted of simple line drawings. The words and pictures were printed and sketched on 2½ inch squares of white paper; these then were pasted on individual 7 x 9 inch cardboard plates which when inserted into the apparatus by the teacher would center a visual pattern in each window.

The nine words and nine pictures were variously combined depending upon the specific conditions of training, e.g. the cards might contain all words, all pictures, or some combination of words and pictures. In any case only 9 cards were used within any one set of conditions.

Procedures: It is assumed that learning to read involves the interplay of sensori-motor and conceptual skills. Any test situation examining the reading process would require that these variables be incorporated into the test design. Furthermore, it is recognized that the method of teaching reading will vary from teacher to teacher and that teachers will differ in how they might begin the reading instruction. For example, with respect to the matching procedures undertaken to establish basic associations, one teacher might have the child match a picture with another picture; another teacher might begin by having the learner match a printed word with other printed words, while

a third teacher might put initial stress upon matching words and pictures. Not only is there variation between teachers but also variation within a teacher's use of these approaches. Differences also crop up in the ways teachers have their learner make responses to basic matching tasks. Sometimes the learner simply points to the appropriate stimulus pattern, other times he may be required to verbally identify the picture or word. Thus we see that the approaches vary and perhaps each in its own way contributes to the reading process and is useful as a means of introducing the mentally retarded learner to the first steps of reading instruction. The fundamental problem, therefore, was to determine whether or not there existed different degrees of effectiveness among these several methods. Consequently, the material was presented in three forms; verbal (the words were spoken by the experimenter), graphic (pictures were presented *in* simple line drawings), and printed (the words were single line capitals). Likewise, the manner of response varied in two ways: verbal reproduction of the appropriate stimulus, and pressing a button.

In order to ascertain whether or not one program was more efficient than some other arrangement, five conditions of training were compared. Each condition used the same materials but in a different relationship. The groups were given alphabetical designations, and represent the basic matching tasks. Table 1 summarizes the groups' characteristics.

TABLE I

Description of five conditions of training in terms of form of presentation and manner of response.

Condition	Form of Stimulus Presentation		Learner's Response
	standard stimulus	matching stimuli	
A	Picture	Printed Words	Press Button
B	Printed Word	Pictures	Press Button
C	Spoken Word	Printed Words	Press Button
D	Picture	None	Verbal Reprod.
E	Printed Word	None	Verbal Reprod.

Condition A: The training conditions required the subject to match pictures and words, e.g. a picture of a tree would be presented in the top window of Apparatus A while three printed words would be exposed in the lower windows. One of the words would spell Tree. The learner must match the two stimuli and indicate this match by pressing the appropriate bell button located beneath the window that contains the word Tree.

Condition B: This condition involves the same general procedure only now the matching task is reversed, that is, the learner now has to match one of three pictures to a printed word. As in Condition A, the response is made by pressing a button.

Condition C: Again we have the same basic design with the one change; instead of all of the material being visually presented to the learner, the teacher pronounces the standard word twice; the learner has to match the spoken word with one of three printed words that are exposed to him in the row of windows. As in Conditions A and B, the learner indicates his response by pressing the bell button corresponding to the correct word.

Condition D: Using Apparatus B, this group involves a different set of training procedures. In this part of the study the learner is shown a single picture, e.g. a picture of a Tree, to which he must respond by verbally identifying it for the experimenter. He is then given each of the remaining pictures in a random order.

Condition E: Also using Apparatus B, this program utilizes printed words as stimuli. The subject perceives each word and then makes the verbal response. The pronunciation must be essentially correct in order for the experimenter to flash the light thus rewarding the learner's behavior. This activity is reading—at least in its simplest form.

With these five training programs as the basic design, two experiments were conducted. Although the procedures varied somewhat from condition to condition, the same words and pictures were used; the combinations were simply altered whenever the condition warranted it. In both studies, the major concern was to determine whether or not there existed a ranking among the five conditions in terms of learning difficulty.

Experiment I: Thirty-nine children were used, each randomly assigned to one of the five training conditions. No individual was tested on more than one group to which he was initially assigned. Prior to the actual testing, the subject was read a set of instructions that were designed to acquaint him with the "game" and to put him at ease. The experimenter then proceeded to present the cards in random order until 45 successive exposures were given, that is, each of the nine cards was presented five times for a total of 45 separate matchings. More precisely, the procedure was as follows: the learner was shown a card containing the four stimuli, e.g. a picture of a Tree to be matched to the printed word—Tree. He is then given time to study the material and is free to press any one or all of the buttons. If he chooses the correct word, a red light is immediately flashed indicating that this response is correct; if, however, his match is incorrect, no light is flashed and the learner must then continue pressing buttons until he hits upon the correct match. This is called a correction procedure. The "trial" is terminated when the entire 45 card presentations have been made. One trial per day was administered to each learner with the testing continuing until either the criterion of one perfect trial was shown or when 30 days of testing was completed—whichever came first. Whereas in Conditions A, B, and C the learner responded by pressing buttons and was somewhat limited in the number of incorrect responses he could make, Conditions D and E limited the learner to three verbal responses. If after the third attempt the learner was unable to say the appropriate word, the experimenter proceeded to the next card. Learning under all conditions was measured in two ways: a) the average number of errors made in reaching the criterion, and b) the average number of trials to attain the criterion of one errorless trial.

Experiment II: A second group of learners was tested under a modified procedure. This group consisted of five children all of whom were given the five training conditions but each learner received them in a different sequence. In all other respects, the proceedings were identical to those already described for Experiment 1.

TABLE 2

Rank order analysis of five training conditions. Ranking is in the direction of hardest to easiest learning.

Experiment I		Experiment II	
Mean Errors	Mean Trials	Mean Errors	Mean Trials
E	B	E	E
B	E	B	B
A	A	A	A
C	C	C	C
D	D	D	D

Results: In view of the fact that the results of the two experiments turned out to be so similar, it will be sufficient to present them in a single discussion. Both experiments were analyzed in terms of the average number of errors to the learning criterion and the mean number of trials to criterion. The data are presented in simple rank order analysis, for it is felt that a rank order of the five training conditions does reflect somewhat upon the main task of the research, *viz.* when comparing the several methods does a hierarch exist? Table 2 summarizes the results for both experiments. It is demonstrated rather clearly that there does exist some ranking among the different conditions as measured by the two criteria of learning. The consistency with which each training condition holds its relative position in the two studies is of interest. With the exception of only one reversal-between Conditions B and E in Experiment I, the rankings are identical. Task D is the easiest matching to master. Task E (with the one exception already mentioned) is the most difficult. These findings are also illustrated in bar diagram form in figure 3. The mean performance measures are indicated on top of each bar.

It is to be pointed out that not all of the original learners in Experiment I attained the criterion. Of the original group of 39 individuals, 21 reached the criterion, 11 failed to within the prescribed 30 days and therefore were not included in the analysis of results, and 7 persons had to be dropped from the testing because of illness, lack of understanding of the task, etc. If some conditions of training

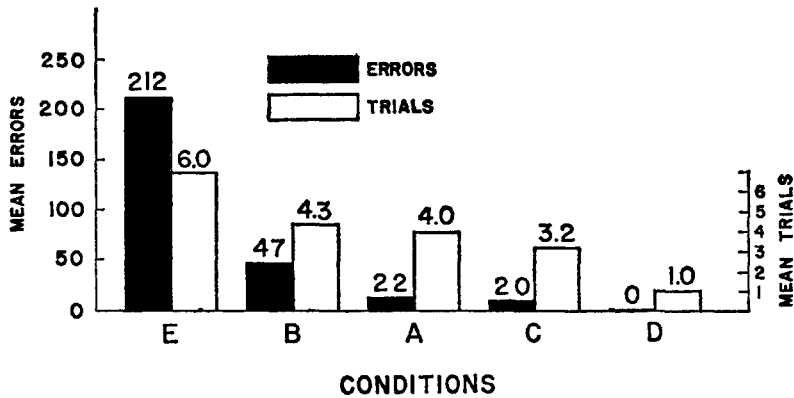


FIGURE 3 MEAN PERFORMANCES OF 5 TRAINING CONDITIONS IN EXPERIMENT 2

were inherently more difficult than others, this fact would show up in the number of persons attaining the criterion for each condition. We might expect fewest learners mastering Condition E and the largest number learning Condition D. The results do not give too clear a picture of this one question, although there is some measure of inter-condition variation in terms of the number of learners reaching the criterion. Three persons learned Condition A, four Condition B, three Condition C, six Condition D, and five Condition E.

The results of the five learners in Experiment II also demonstrated a certain unevenness in their performances over the five conditions. Only two persons reached the criterion on all five problems; one person did so on only one (Condition D—the easiest), and two individuals satisfied the learning criterion on four of the five conditions. As in Experiment I, the number of learners mastering each problem varied demonstrating the intertask difficulty. Condition A was learned by three persons, Condition B by three also, Condition C by 4, Condition D by all five in the study, and Condition E by 4 learners.

Discussion: In a way, the results of the two experiments might not have been totally unexpected, especially those obtained in Conditions D and E. Most teachers would predict that the requirements of Task D would lead to fastest learning for it appears the easiest com-

bination to match, and that the very nature of Condition E would lead to most difficulty. Perceiving, recognizing and appropriately responding to a printed configuration *is* reading, and this is essentially what Condition E demanded. Conditions A, B, and C are placed intermediary in their level of difficulty, although each maintains a position in the ranking that remains quite constant. On an *a priori* basis, one might think that Condition C would be more difficult than either A or B since it involves matching printed stimuli to auditory stimuli. This may seem to be a more difficult matching task, but the results show otherwise. More research needs to be done concerning the relative difficulty of these learning tasks.

Although the present findings are first approximations of the psychological principles being applied, the results do indicate the feasibility of developing basic reading skills in this manner to the mentally retarded learner. Even though the present equipment and programming did not create conditions of high efficiency and economy for both experimenter and learner, there does appear to be some basis for ultimately developing more precise programs and better instrumentalities for increasing the effectiveness of these methods. This line of research has some broad implications for the teacher who is involved in training the exceptional child. The kind of material as that used here and in the manner in which it was included in a training process could be used at the reading readiness level, perhaps for the purpose of developing the learner to a given level of ability before he is more formally exposed to systematic reading education. What is more specifically implied is the notion of sequencing the reading tasks for the learner. All teachers process their learners through some sequence of reading tasks; the question, however, still remains—is the particular programming the best, that is, is it leading to most efficient learning? If the results of this research indicate anything, it may be in giving a hint to the kind of sequence that a teacher might use when she is concerned with establishing basic matching skills. One should not begin with a matching found in Condition E. This is too difficult nor should one spend excess time on Condition D, for this may be too simple. There is of course an optimal transition for the individual learner from method to method. The question remains to determine precisely the nature of this program.

With respect to the mechanical features of programming and

processing the text material, it is felt that automated methods of instruction have real utility for the teacher. This research was not primarily interested in the device itself; yet, even with the rather crude equipment some essential aspects of the teaching machine concept were being examined as well as demonstrating some of the advantages that might be had by the individual teacher under more advanced instrumentation. The learner was presented with specific information; the experimenter was able to examine the learner's performance on each piece of text material as it was presented; the experimenter was able to verify the correctness of a choice when it was correct or provide immediate information on points that were incorrect; the learner was allowed to proceed in a sense, automatically to the next point in the learning sequence especially when the preceding unit was mastered; the experimenter was able to keep a detailed record of the performance of the learner both in terms of errors and correct responses; and, although this one feature was not present in the equipment used, the teaching machine would monitor the programming with infinite patience and without human bias—which in themselves are goals to be achieved.

Summary

Two experiments were conducted with mentally retarded subjects to explore the possibility of establishing a programmed hierarchy of simple stimulus-response associations basic to the reading process. The subjects were required to learn several discrimination tasks each involving the matching of one of three stimuli to a standard stimulus. The materials to be matched were drawn from the Dolch Picture-Word series and were limited to words and pictures representing simple object-nouns. The stimuli were presented in several ways: verbal, graphic, and printed. The responses reflecting the child's performance were classified into two categories: pressing buttons indicating the choice of stimulus, and verbal reproduction of the selected word or picture. Each subject was given one trial a day. The criterion of learning was determined after the child correctly discriminated all exposures. A discrimination consisted of the subject examining the standard stimulus of the particular condition of training, responding to it by selecting the appropriate figure from the array of three choices, making the appropriate response, and finally receiving the reinforcement. These preliminary studies were designed

to determine each child's rate of learning under a specific discrimination series and to measure the number of trials required to produce mastery of the task. By pairing the stimulus forms with the different forms of response, a number of S-R combinations were available for study. The purpose for considering these variations was to judge whether or not one kind of association produced faster and more effective learning than some other association. It was hoped that from this kind of analysis a graded series of discriminations would be empirically derived and eventually integrated into some form of programmed sequence that could be presented to the learner using a teaching machine.

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Dr. Chris Koronakos earned his bachelor's degree at the University of Colorado and his M.A. and Ph.D. degrees at the University of Nebraska. His area of specialization is learning and problem solving. Dr. Koronakos is a member of the Department of Psychology at Western Michigan University.

Working with Reading Problems in Norway

By Alf Preus

Logopedist, Haugesund, Norway

Introduction

Some years ago, in the initial interview with a young adult Norwegian non-reader, I got the following amazing and thought-provoking information: "You know, I tried to get away from the problem by going to sea. Boy, did I feel lonesome out there. I was not able to read the few letters my parents wrote me, and asking one of the other guys to read them to me would make him know about my problem. I tried to write my mother a letter one day, but I gave it up and threw it in the ocean. And there were lots of things that I would have to read in order to do my job properly and take part in the activities on board: posters, signs and notices. I could not read them, and I tried hard to keep the others from knowing that I was not able to."

A statement like this makes one think. We, who are capable of reading, do not realize how frequently we use our reading ability. We are sometimes aware of it when we sit down with a book or a newspaper, but it takes a non-reader to tell us about all the times that we almost unconsciously make use of reading every day. To be a non-reader or near to a non-reader in our culture is a more severe handicap than most of us realize.

So what do we do in order to prevent a human being from developing such a handicap and to help him overcome it? In Norway as in the United States, we have only in this century had our eyes opened to this problem. The educational set-up, the viewpoints and methods may be different in the two countries, but we seem to make great strides in the right direction on both sides of the Atlantic. In this article I will try to show how Norwegians look upon reading problems and deal with them therapeutically.

Historical Review

Fifty years ago, and in some schools a much shorter time, a severe reading problem was looked upon as proof or indication of mental retardation. In fact, some teachers still think in this manner. But long

before regular remedial reading programs were initiated, many retarded readers were helped by understanding and ingenious classroom teachers in the one room rural school as well as in larger institutions.

Around the beginning of this century alert and interested teachers saw that extra effort must be made in order to identify and help students with reading problems. In 1919 Norway got its first residential school for children with speech and reading problems. Even if the existence of the school was unknown to many educators, there was soon a long waiting list of students who needed therapy in this school.

The end of World War II was followed by a great expansion of the speech and reading program in Norway. Two new special state schools were established, and more important, a training program for logopedists, specialists in treating children with speech and reading handicaps, was initiated. The therapists trained in this program all have a teacher's certificate and several years of classroom teaching experience. After one year of training, most of us go into positions as speech and reading specialists in the public schools, a few work in the state special schools and some at school psychologist centers. Since we are supposed to deal with both speech and reading problems, our caseloads are very heavy. In order to be able to help a larger number of reading cases, the Norwegian state has every summer for the last five years arranged six weeks summer courses for the training of remedial reading teachers. These teachers usually handle the reading cases, very often after they have been diagnosed by a logopedist and under his supervision.

Our public school laws make provisions for the handicapped in reading, and every child with a reading problem has a legal right to help. For example the *Act of November 23, 1951 Dealing with Special Schools* says:

The State shall provide the requisite number of

- (1) Schools for children and young people who can only derive partial benefit from the teaching given in the primary schools or in ordinary schools for young people, for the reason that they:
 - a. _____
 - b. _____
 - c. _____
 - d. have difficulty in learning how to speak, read or write.

How Do We Explain Specific Reading Problems in Norway?

In explaining the etiology of reading problems, Norwegian educators for a long period were influenced by Danish research and thinking. The idea that reading problems were caused by a congenital weakness, called wordblindness, found strong support in Denmark. Writers like Henning Skydsgaard, Knud Hermann and Edith Norrie and in Sweden Bertil Hallgren explained most reading problems as being caused by this constitutional deficiency. Studies showed that between four and ten per cent of the total population were expected to suffer from wordblindness.

Naturally, not all reading problems were explained as having their etiology in wordblindness. But many teachers, and even more parents, grabbed at this solution to their children's academic problems. The parents of a child with reading problems found the diagnosis wordblindness much more acceptable than mental retardation. Especially the misunderstanding that wordblindness could be diagnosed through special types of reading and spelling errors, like reversals, made many parents and teachers believe that wordblindness was the explanation to the child's difficulties. Sometimes wordblindness was thought of as a condition (like colorblindness) that not much could be done about, and instead of helping the non-reading child, the diagnosis tended to discourage him from making any effort at reading.

I shall never forget one little third grader who showed this attitude. Having taken over the class recently and found a very pronounced diversity in reading ability, I had decided upon individualization of instruction and group work. And here was this little boy who was only able to recognize a small number of two-sound words. Accordingly, I gave him a very small assignment to prepare for the next day. (Norwegian school children are supposed to have home assignments in reading.) The next day I found out that he had done nothing with his little text, and I asked him why. He looked at me, smiled overbearingly and said, "Don't you know I am wordblind?" This boy, who was emotionally immature and somewhat mentally retarded had found a very good excuse for not displaying any effort in school work.

The tendency to explain all reading problems in terms of wordblindness naturally led to the formulation of its antithesis, saying that no such thing as wordblindness existed. An exponent for this

view is the Swedish educator, Dr. Helge Haage. Haage believes very strongly in the phonetic method and says that the most important support a child has when he learns to read, is his spoken language (“talspråkstödet”). Spoken words are like chains of sounds, written words are like chains of written sounds, the problem is to know how to sound the words out and “draw them together.” Dr. Haage’s methods are sound and practical and applicable to most words in the Swedish and the Norwegian languages, since both are mostly phonetically spelt, that is to say the written image of the word is very similar to the “image” of the word. Danish is less phonetical, and that may be the reason why the phonetic method has been used in that country to a lesser extent. As to the English language, which is rather unphonetically spelt, Haage’s methods may have much less application in countries where this language is spoken.

The current view about the etiology of reading problems in Norway is that there is no one explanation. Reading problems usually have a multiple causality and may have different etiologies in different cases. Hans Jørgen Gjessing, a Norwegian researcher in this field, distinguishes between different kinds of “dyslexia:” visual, auditory, auditory-visual, educational, developmental, and emotional. He points to the importance of a thorough diagnosis of each reading case in order to ascertain specific problems and needs, and so tailor the therapy to these needs. Gjessing in his thinking seems to be influenced by American authorities like Gates, Robinson, and Monroe.

How Reading Therapy is Organized

Most students with reading problems in Norway receive therapy in either of these three ways: (1) A very small number are accepted as pupils at residential state schools for children with speech and reading problems. (2) The great majority of cases are treated in the public elementary schools by logopedists or specially trained reading teachers. (3) Some receive reading therapy as private tutoring by logopedists and reading teachers.

(1) Most of the students in the Special schools come from rural areas and small communities where there is no help available for speech and reading problems. There are still long waiting lists for children who need to go to these schools. The students accepted in the Special schools are either pure reading cases or combined reading-speech cases. Granhaug School, near Oslo, gives special training to

reading-handicapped children whom the public schools have not been able to help. At Stepperud School for Children with Central Language Difficulties is a group of children who show signs of both speech and reading problems.

(2) The reading cases in our public schools are treated in different ways. In the largest cities and in some medium-sized ones, some children with severe reading problems are gathered on a yearly basis in special classrooms, where they receive special, intensive training until they are able to return to their respective homerooms. The advantage of this system is that children with severe reading problems who are far behind their classmates are allowed to make gains in reading without having to compare themselves with better readers. Also they avoid being called upon to read aloud (a procedure very common in Norwegian schools) which usually tends to produce emotional concomitants and destroys good reading habits encouraged by the logopedist. It must be stressed that the children are kept in these "reading-classes," as they are termed, only until they are ready to profit from ordinary classroom teaching and not until they have overcome their handicap completely.

Most children however, are not removed from their homeroom, but only receive therapy in group or individually for a certain number of periods every week. This system is called "reading clinic." When working with these children, it is extremely important that the logopedist or reading teacher cooperates with the home-room teacher of reading, so that the child is given appropriate tasks when he is together with his own classroom group. Reading aloud, the use of too advanced reading material, and speeding up of the reading rate will as a rule have to be discouraged.

(3) Children from rural areas, where there is no school logopedist or reading teacher are sometimes referred to the nearest logopedist, who will diagnose the child, suggest materials and methods, and help the child's home-room teacher or another appropriate teacher to start some remedial work. Once in a while a logopedist will also work with a child as a private tutor. When a child is referred to a logopedist for diagnosis and/or treatment by a medical doctor (usually the school physician), the State Health Insurance will cover all travel expenses and about half of the logopedist's fee. This is also the case with speech therapy.

Logopedists, working with both speech and reading cases in the

public school will find some children who may be classified in both categories. Retarded readers, especially with auditory difficulties, frequently display minor articulation errors, and the combination of reading and stuttering difficulties is sometimes found. Most reading cases, however, do not display speech defects. The logopedist's caseload will therefore usually consist of two separate groups, reading cases and speech cases, and the relative size of both groups will vary. In 1960-61 about forty per cent of my caseload were reading cases and sixty percent speech cases.

What Kind of Methods Are Used?

Because of the phonetic structure of the Norwegian language, most of the remedial therapy is done through using an approach close to the phonetic method. However, meaning is constantly stressed. Non-phonetic words are usually taught through visual recognition methods, using picture clues, and configuration clues. Reading and spelling go hand in hand and tend to support each other. The child is trained in building a basic spelling vocabulary. Sounds are identified and drawn together utilizing visual, auditory, tactual and kinaesthetic clues. Ear-training and listening games, matching and completion exercises make the work interesting. A series of books with high grade interest level and low grade reading level have been published in the last years, books that have convinced the slow reader that reading is fun.

It is fascinating to be a witness to the growth of reading in a youngster who has never gotten any meaning out of written symbols. It was a great day to both student and teacher when the up-till-then non-reading fifth-grader, upon being shown the word MOT (meaning "against"), could tell his therapist that he had understood the preceding day the meaning of that word on a poster in a demonstration procession against selling liquor in town. He was just beaming at the thought that he had understood the message behind the three letters MOT.

Do We Need to Learn More About Educational Therapy in Reading?

Norway's greatest dramatist Henrik Ibsen in his epic drama "Peer Gynt" points out that the specific human trait in man is that he is open to others, not like the "trolls" whom he describes as being "themselves enough." It is extremely important for all of us, including those of us who work in the field of reading therapy, that we are open and

do not think that the methods that we have always used give the best answers to the problems, that they are "enough" or sufficient. When going back from Kalamazoo, Michigan, where I have mainly studied speech disorders, but also have had the opportunity to see some of the work done in the Psycho-Educational Clinic of Western Michigan University, I am bringing back to my work in reading therapy the viewpoint that reading for meaning is more important than any other principle upon which our reading therapy can be based. It is easy to get lost in the jungle of mechanism-and perceptual-training. The concept of "mental content" and the idea that reading is more than anything else a thinking process will somehow have to be incorporated in my methodology and worked into practical teaching procedures. How that is to be done, I will have to find out through experience, and I am sure it is going to be a challenge.

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Alf Preus, in his native Norway, has combined at the undergraduate level both speech correction and educational therapy in reading. He obtained his Master's degree from Western Michigan University in 1962. While completing the requirements for the Master's degree Mr. Preus participated in the activities of the Psycho-Educational Clinic.

Ten Second Reviews

By *Blanche O. Bush*

Western Michigan University

Not since the days of Flesch and his *Why Johnny Can't Read* has the profession faced an issue that has roused so much discussion and controversy as individualized reading. Everyone finds acceptable the principles of individuation of growth and the need to have the type and rate of instruction based on the child. Furthermore, for years exploration has been made of methods of instruction and classroom organization that will enable each child to develop to his maximum. Everyone recognizes the potency of reading interest as a factor in motivation and that children should have a wide variety of material from which to select. All texts in reading methods discuss procedures for organizing individual or small "helps" or "needs" groups for children with particular problems. Why then is there an issue?

—A. Sterl Artley

Individualizing reading starts not with procedures but with a creative, perceptive teacher—one who believes that children want to learn; who thinks with children rather than for them; who basically respects the individual behavior of every youngster and who works with children in orderly but not rigid ways.

—Leland B. Jacobs

Artley, A. Sterl, "An Eclectic Approach to Reading," *Elementary English*. (May, 1961), 38:321-326.

On the basis of the judgment and opinion of qualified leaders in the field, along with the findings of the growing body of research, the writer states that there seems to be no valid reason for making a choice between individualized reading and a group approach using basal materials. The wise procedure would be to combine and adapt the best features of each into a pattern that adequately serves the needs of the learner.

Betts, Emmett Albert, *Foundations of Reading Instruction with Emphasis on Differentiated Guidance*. American Book Company, Chicago, 1957, pp. 39-61.

Learning to read is an individual job, according to Dr. Betts, but except in isolated instances, most individualized programs make use of class planning, individual contributions to class problems or to entertainment and other socializing situations. In this way individual progress is recognized; an integration of school activities is possible; purposeful reading is motivated; class experiences are extended and deepened; and individual development is not reckoned in terms of class progress and a fixed curriculum. The writer also traces the history of individualized reading.

Bond, Guy and Eva Bond Wagner, *Teaching the Child to Read*. The Macmillan Company, New York, 1960.

According to the authors, reading cannot be systematically taught when the individualized approach is used. They point out that no teacher can keep in mind the reading needs of each child from week to week. Also, no teacher has the time to teach even one selection each week to each child if the usual procedure of teaching a selection is followed, namely: teacher preparation, building readiness, introducing new vocabulary, determining purposes, reading silently, discussing, developing reading skills and abilities, and using products of reading.

Carter, Homer L. J. and Dorothy J. McGinnis, *Teaching Individuals to Read*. D. C. Heath and Company, Boston, 1962, pp. 61, 70, 132-133.

Individualized reading is an approach to reading which is based on the needs of children. Instruction in reading is provided as each child reads material which he has chosen because it is of interest to him. Individualized reading is based on the premise that skills are necessary to reading but must be introduced functionally. It is also based on the assumption that each child should have an opportunity to proceed at his own pace and should not be compelled to compare his performance in reading with that of others. The difficulty level of the material is subordinated to successful and enjoyable reading.

Dolch, E. W., "Individualized Reading vs Grouping Reading," *Elementary English* (December, 1961), Part I, 38:565-575 and (January, 1962), Part II, 39:14-22.

Dr. Dolch believes that individualized instruction in reading is valuable regardless of the criticism made against it. This does not mean that it is the one and only method of teaching reading but that it will take its place in the repertory of the skills of teachers.

Draper, Marcella K. and Louise H. Schwietert, *Practical Guide to Individualized Reading for Teachers and Supervisors in Elementary Schools*. May Lazar (ed.). Board of Education, Bureau of Educational Research, No. 40, October, 1960.

As a result of research conducted in 1949-1953 dealing with third grade children who were "beginning readers" in 15 schools, it was found that current reading practices and procedures are not keeping abreast with the philosophy concerning effective reading experiences. Practices and approaches are not meeting the needs, interests, and ranges of ability of children. An evaluation of the findings seems to point to the fact that the solution lies in a truly individualized approach to reading.

During the period from September 1956 through June 1959 the staff members of the Bureau made a survey of approximately 80 schools and 200 classes engaged in developing individualized reading. Extensive and intensive observations in classrooms, detailed interviews with teachers, informal discussions with children, and conferences with supervisors were conducted. As a result of these experiences and activities the data were collated and an excellent guide was prepared. Detailed information on procedures and practices in the classroom, reading skills, problems confronted and an evaluation of individualized reading are presented. In an excellent appendix, books are suggested for individualized reading for grades one, two, three and four.

Groff, Patrick J., "Materials for Individualized Reading," *Elementary English* (January, 1961), 38:1-8.

The prime material requisite, as reported by the author, for the success of an individualized reading program is a large number of

books and other reading materials on various topics and on widely divergent reading levels. The teacher should acquaint himself with the content and difficulty of the books and be aware of the interests of each age level. The development of word analysis and other skills should not be overlooked and source material for developing these skills should be provided. The manuals for independent reading activities can be helpful in the choice of books.

Hildreth, Gertrude, *Teaching Reading*. Henry Holt and Company, Inc., New York, 1958, pp. 29-33.

Teachers turned to individual reading from traditional methods because of the advantages of ungraded teaching in typical classes, the discouragement that slow readers meet when they try to keep up with the rest of the class, and the demands of rapid learners for good books. Outcomes of experiments with individual reading and some of the controversial issues and problems are discussed by the author.

Jacobs, Leland B., "Individualized Reading Is Not a Thing," *Practical Suggestions for Teaching*, Alice Miel (ed.), Bureau of Publications, Teachers College, Columbia University, New York, 1958.

Learning to read is an individual accomplishment, yet we use procedures that basically deny individualism. Some teachers have begun to experiment with methods of teaching reading skills. They are trying to arrange the time for teaching reading so that individual attention can be given. They are also trying to assess more realistically the strengths and weaknesses of the child's current performance in reading and then put their energy where it is needed. They are encouraging children to choose their own reading material and keep a record of material read. This, Dr. Jacobs believes, is an experimentation which for want of a better name has come to be known as individualized reading. The misconceptions about individualizing reading and the insights essential for successful individualized reading programs are discussed.

Lazar, May, "Individualized Reading," *Education*. (January, 1958), 78:281-289.

Individualized reading is based on thinking which involves new

concepts not only with respect to class organization, techniques and materials, but to the child's developmental needs. According to Dr. Lazar the wide range of abilities within each class and the solution to successful learning lies in a truly individualized approach to reading—one that reaches the varying needs, interests, and abilities of all children in the class. She concludes that "if teachers are more concerned with the child than the subject, prefer personal to mass approaches, and see value in stressing growth and development not regimentation, then this individual approach to reading may be a step in the right direction."

McCullough, Constance M. and Lorene K. Fox, "Opinions Differ on Individualized Reading," *N. E. A. Journal* (March, 1958), 47:162-163.

Much of the knowledge we now have about teaching of reading has been developed by curious wasteful patterns of extremes. Therefore, before we waste time and effort on individualized reading, Dr. McCullough states, there are urgent needs for carefully planned research. First, an exploration to find why some school systems are discouraged with their systematic, sequential programs must be made, and second, varied degrees of the individualized type of approach must be injected into a systematic program to determine what combination of system and self-selection procedures might produce the best results. Dr. McCullough emphasized that as true professionals we must insist upon legitimate research, with the results interpreted by those best qualified in knowledge and objectivity, before accepting and incorporating them into our own practices.

Dr. Fox's opinion is that individualizing the teaching of reading means deliberately gearing materials, tempo and techniques, so that the children's needs, interests, and learning patterns, their insights and meaning can be called into fuller play. Learning to read has always been an individual matter, regardless of how uniform or carefully standardized the steps of teaching reading may have been.

Newton, J. Roy, *Reading in Your School*. McGraw-Hill Book Company, Inc., New York, 1960.

Proponents of individualized reading, according to Dr. Newton, do not advocate the individualized approach to the exclusion of

others. This plan is not new since teachers have been using it in a modified way for many years, but the idea of using it as a form of instructional organization for an entire class is relatively new.

Sperber, Robert, "An Individualized Reading Program in a Third Grade," *Practical Suggestions for Teaching*, Alice Miel (ed.), Bureau of Publication, Teachers College, Columbia University, New York, 1958, pp. 44-55.

The teacher who launches an individualized reading program must assume a number of responsibilities of both an administrative and instructional nature. These include: providing books and other seatwork; making arrangements for time allotment, seating and placement of hundreds of books; keeping records that will be effective; guiding the children's selections of books; forming flexible groups, especially after the middle of the year; providing instruction when needed without omission of necessary skills; and interpreting this technique to parents.

Strang, Ruth, Constance M. McCullough, and Arthur E. Traxler, *The Improvement of Reading. Curriculum and Methods of Education*. McGraw-Hill Book Company, Inc., 1961.

Recognition of individual differences and interests in every grade leads to an individualization of reading instruction. The features necessary for an individualized reading program include: books with a wide range of reading difficulty, interest and content; responsibility for selection of suitable books placed on the child; demonstrations of routine and self-management necessary for smooth functioning; records to be kept by children and teacher; individual inventories to ascertain pupil's independent reading level, accomplishments, deficiencies and interests; and worth-while activities for those children who are not having individual conferences. The authors also discuss the values of the method, give an appraisal of the program, and set forth the possible disadvantages and problems.

Veatch, Jeannette, "In Defense of Individualized Reading," *Elementary English* (April, 1960), 37:227-234.

Individualized reading is a program in which the pupils person-

ally choose the books and materials by which teachers instruct each child in reading. It must include a personal teaching period for each child of at least five minutes about every three days. She listed the areas in which more research is needed and concluded with the statement, "I welcome a new and challenging approach such as individualized reading, it is the first serious threat to our traditional system."

Veatch, Jeannette, "Individual Reading Guidance: Fifth Grade," *Practical Suggestions for Teaching*, Alice Miel (ed.) Bureau of Publication, Teachers College, Columbia University, New York, 1958, pp. 44-55.

By the time children reach the fifth grade they "differ enormously in reading tastes and in capacity to consume books." If a teacher invites children to read books which are to contribute to their own growth in reading, to their understanding of the many things going on in the world, and to real enjoyment, the author believes that the teacher must be ready to share all kinds of enthusiasm and know how to discuss books she hasn't read as well as those she has. Valuable suggestions for independent activities while the teacher is conducting individual conferences is given. Questions usually asked concerning this approach such as time spent in reading, size of classes, number of books, and integration with other subjects are answered.

Witty, Paul, "Individualized Reading—A Summary and Evaluation," *Elementary English* (October, 1959), 36:401-413.

Dr. Witty summarizes a good reading program as one that recognizes the value of systematic instruction, the utilization of interests, the fulfillment of developmental needs, and the articulation of reading experiences with other types of worth-while activities. He believes that the best features of both individualized and group instruction should be accepted. The basal text should be a dependable guide for acquiring all basic skills, but there is a need for more diversified materials as a supplement to the basal reader.

Wrighton, J. Wayne, Director, and May Lazar, Assistant Director. *Individualized Reading, Interim Report*. Board of Education, Bureau of Educational Research, New York, June, 1957.

In this study three major objectives are included: 1) to study

the current practices of individualized reading, 2) to evaluate the practices on the basis of accepted criteria of an effective reading program, and 3) to inaugurate in selected schools a project and then help in the development of a good individualized reading program. The criteria are:

1. Teachers must accept, respect and provide for individual differences.
2. Teachers must recognize that a child's physical and mental health are important in successful learning experiences.
3. Children must desire to read and have a purpose.
4. A child must be allowed to grow and develop at his own pace.
5. The program should provide methods and materials based on each child's own peculiar assets, needs and levels.
6. The child should be the best reader that he is capable of being.
7. The child should have successful experiences.

It is reported that the individualized reading program was definitely beneficial to the children. They read better and with more understanding. The authors stated, "Teaching principles are based on motivating the child, and the children are best motivated by interest which is incorporated in this program to its fullest extent."

SPECIAL ANNOUNCEMENT

The seventh annual meeting of the Michigan Reading Association will be held February 28 and March 1, 1963, at the Kellogg Center, Michigan State University, East Lansing, Michigan. Special speakers for the occasion are:

Constance M. McCullough

Clara G. Stratemeyer

Charles Van Riper

CLINICS

DEMONSTRATIONS

GROUP DISCUSSIONS

