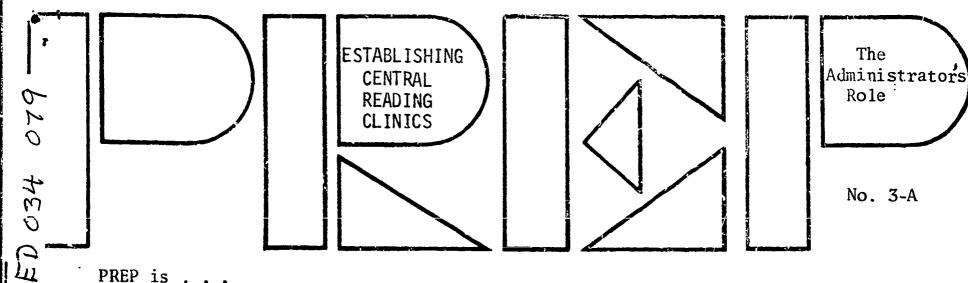
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- PREP is . . .
- a synthesis and interpretation of research, development, and current practice on a specific educational topic
- a method of getting significant R&D findings to the practitioner quickly
- the best thinking of researchers interpreted by specialists in simple language
- the focus of research on current educational problems
- a format which can be easily and inexpensively reproduced for wide distribution
- raw material in the public domain which can be adapted to meet local needs
- an attempt to improve our Nation's schools through research

This is the second in the PREP series of four monographs on reading difficulties and the cooperative efforts of various professional groups to deal with the problems encountered. This monograph is directed to the superintendent and other top-level administrators who must look at the treatment of reading difficulties throughout the school system, and make final judgments and decisions concerning the attack of reading problems on a wider scale and more in depth than is possible at the individual school level. Such an attack might be through a central reading clinic. This monograph identifies the types of cases which are best handled a: a clinic, describes the various kinds of clinics or diagnostic centers, and gives helpful data to administrators to enable them to make decisions about establishing specialized reading clinics.

The text was written by Carl B. Smith, Barbara Carter, and Gloria Dapper in connection with an interpretive studies project supported by the Bureau of Research of the Office of Education.

The kit of which this monograph is No. 3-A contains four related documents: No. 3-B is a bibliography of the references cited in No. 3-A; No. 3-C is a list of university reading clinics that treat severe reading disabilities, whose directors may he sources of information and assistance; No. 3-D is a sample book list for a reading clinic; and No. 3-E is a list of some of the latest research documents on reading available through ERIC.

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PRIMARY LEARNING DIFFICULTIES

Children Who Do Not Read

There are children who do not learn to read, even though they have average or above average intelligence. The validity of the problem was established by an English school doctor as early as 1896 (Kolson and Kaluger, 1963, p. 17). Lextensive research since then—in England, Denmark, Germany, and the United States—has shown the learning problems of these children to be of such a special nature that they can respond neither to classroom instruction nor to the usual corrective techniques (Goldberg, 1959; Hermann, 1959; Orton, 1925).

If specialized help, often on a one-to-one basis, is not provided, these children are usually condemned to lives of mounting frustration, their natural talents locked within them, the key to knowledge lying always just outside their grasp (Ellingson, 1967, p. 32). The recurring failure to reach them by the usual methods has turned more and more school systems to diagnostic clinics, for only here can children with such severe problems be offered the help they need.

Over the years, most clinicians and remedial teachers have found that remedial readers fall into two groups: those who can benefit from corrective instruction in the classroom or a small group, despite having a cluster of educational, motivational, and psychological problems coupled with possible visual or auditory impairment—and those who cannot (Kolson and Kaluger, 1963). The latter have severe reading disabilities, and they are the children who are discussed here as needing specialized clinicial assistance.

Into whose province do severe cases fall? The school must play a larger role in diagnosis and treatment, for the problems are so unique that even enlightened parents cannot cope with them. Even where private corrective therapy is available, it is often prohibitively expensive. Temple University Laboratory School Philadelphia, Pennsylvania, for example, charges \$1,200 for a semester of therapy.

So there is, in fact, little help for most children with severe reading disabilities except through carefully planned school-connected programs, programs which must be instituted by top-level school administrators. They alone have the overall control, influence, and manipulative prerogatives to establish the kind of service required for this specialized problem. The administrator must determine the extent of severe reading disability in his district, what type service best fits his school system's needs, and what personnel and financial assistance he must have to provide that service.



^{1/} References cited in the Bibliography, No. 3-B.

Characteristics of Severely Disabled Readers

The population in question includes from 1 to 5 percent of the school system, depending on the nature of the school district (Strang, 1968, p. 2). Most seriously disabled readers have little self-confidence. They have seen their classmates learn readily what they fail to learn. They have come to believe that their own stupidity is holding them back. Moreover, they have been told, directly or indirectly, by uninformed parents and teachers that they are simply lazy or stubborn and that a little more effort would achieve reading ability in no time (Kolson and Kaluger, 1963, p. 4). Some tend to believe this and may conclude that it is impossible for them to learn to read (Strang, 1968, p. 70).

Severe reading disabilities are deep-seated. They are often described by such imposing--and often imprecisely used--terms as minimal brain damage, dyslexia, and perceptual handicap. These disabilities are not related to low intelligence, for children with severe reading disabilities are often above average in intelligence. Such eminent scientists as Niels Bohr, Thomas Edison, and Albert Einstein are believed to have had severe reading difficulties.

Some of the labels attached to people with severe reading problems may lead teachers and parents to think that there is a specific cause and, therefore, a direct remedy, as with a bacterial infection which can be treated with penicillin. Such cause and cure relationship does not exist. Each case of severe reading disability requires an individual approach. There is no one single problem, nor a single approach to treatment.

Children with severe reading difficulties usually have a syndrome of problems. One widely used description of a syndrome lists five major symptoms, including inability to recognize letters and words, difficulties in the visual and motor memory of letter shapes, difficulties in writing letters, difficulties in distinguishing right from left, and difficulties in placing digits serially to form a number (Kolson and Laluger, 1963, p. 30). "Doc, I've get it up here," one child said, "I just can't get it down my arm."

No general description can accurately fit any single child with severe reading difficulties, save the observation that seven out of ten times it is a boy. He can have all or any of a combination of physical, emotional, neurological, and instructional problems.

Visual Perception Problems

Visual perception problems generally fall into three categories:
(1) difficulty in distinguishing between separate objects, (2) difficulty in recognizing parts of a whole, and (3) difficulty in synthesizing or combining parts to form a whole. Children with perceptual problems may, for instance, perceive only the initial letters of a word, thus confusing "horse" with "house." The problem may be in distinguishing similar letters, so that "b" appears the same as "d" or "u" the same as "v". Children tend to reverse letters, writing "brid," for "bird," or reverse words and even

-3-

phases. They may regularly omit letters from words or substitute one simple word for another. They usually have difficulty in distinguishing figures from their background. They may exhibit mirror writing (Kolson and Kaluger, 1963, pp. 30-32).

Psychomotor Disturbances

Children with psychomotor disturbances may have confused directionality and poor left-right orientation, a distorted idea of their own position in space, and trouble making appropriate adjustment in body position, for example, when told to touch the left knee with the right hand (Strang, 1968, pp. 51-52). They show poor motor coordination and poor drawing and copying ability.

Auditory Perceptions and Speech Problems

The child who has a deficiency in auditory perception may have difficulty in distinguishing between similar sounds, such as "p" and "b" or "g" and "v", as well as in blending sounds together or in matching sounds, His speech development, as a consequence, is slow.

Problems of Memory and Association

Either visual or auditory memory may be deficient, so that children with these problems will have trouble recalling the image of a letter or remembering its sound. In writing the letter "z," for instance, they must depend on rote memory of the three directions which the line forming this letter takes, rather than a mental picture of the letter (Kolson and Kaluger, 1963, p. 31). In writing "heavy," they may drop the first vowel sound and attempt to write only the three letters "h-v-y," and in the motion of writing, blend the three together so that they come out "hy" (Kolson and Kaluger, 1963, p. 32). Their problems of association center on difficulties with the concepts of time, size, number, and spatial direction.

Emotional Problems

Children with severe reading disabilities are subject to tension, anxiety, and frustration. Their attention span is often short, and they may find it difficult to work independently. Many are easily distracted. The emotional problems may not have caused the reading difficulties but, instead, have stemmed from them. Whether first or last, they have to be dealt with.

The Dimensions of the Problem

Successful treatment of severe reading problems depends not only on an individualized program, but also on a program that diagnoses various other aspects of the child. Building up the ego is as important as diagnosing specific strengths and weaknesses in tailoring a suitable program for each child (Kolson and Kaluger, 1963, p. 42). Obviously, a strictly look-say approach is as inappropriate for the child with deficiencies in visual perception as a strictly phonics approach is for the child with problems in auditory perception. To overcome visual perception deficiencies, visual training exercises may include eye muscle training—following a bouncing



light from left to right--or practice in depth perception--concentrating on different colored posts placed at various distances from the viewer. Children with visual-motor disabilities may be given coordination exercises--practice on a walking board or tracing grooves in templates. The training will depend upon the specific needs of the child. It should be noted here that the relationship between visual-motor disabilities and teaching reading is based on correlation studies which cannot impute a cause-effect relationship. Some authorities question the wisdom of any kind of mass emphasis on visual-motor coordination activities as a treatment for reading disabilities. Usually the treatment, as well as the diagnosis, must be on a one-to-one basis, at least in the beginning. There is no point in minimizing the time involved. It may well be years. For the administrator that means a very low teacher-pupil ratio--one that takes a very high per-pupil cost.

While the number of such severely disabled readers has often been exaggerated--some estimates range to as high as 40 percent of the school population--those who clearly need clinical treatment have been conservatively estimated at 1 to 5 percent (Strang, 1968, p. 2). Even that estimate, however, is enough to cause widespread concern on the part of school authorities. In a city the size of Detroit, for instance, with some 300,000 children in the public schools, it means that 15,000 children probably need some kind of clinical help. Even in a system the size of that in Kettering, Ohio, with only 15,000 students, there may be 750 who need clinical help.

This situation poses agonizing problems to top-level school administrators who fully recognize their obligation to all children entrusted to their care, but at the same time are acutely aware of the practical limitations of time, space, personnel, and money. Yet many systems are moving ahead despite the practical difficulties and are showing promising results. Some of these programs are described in the next section.

GURRENT APPROACHES TO THE PROBLEM

The University Clinic

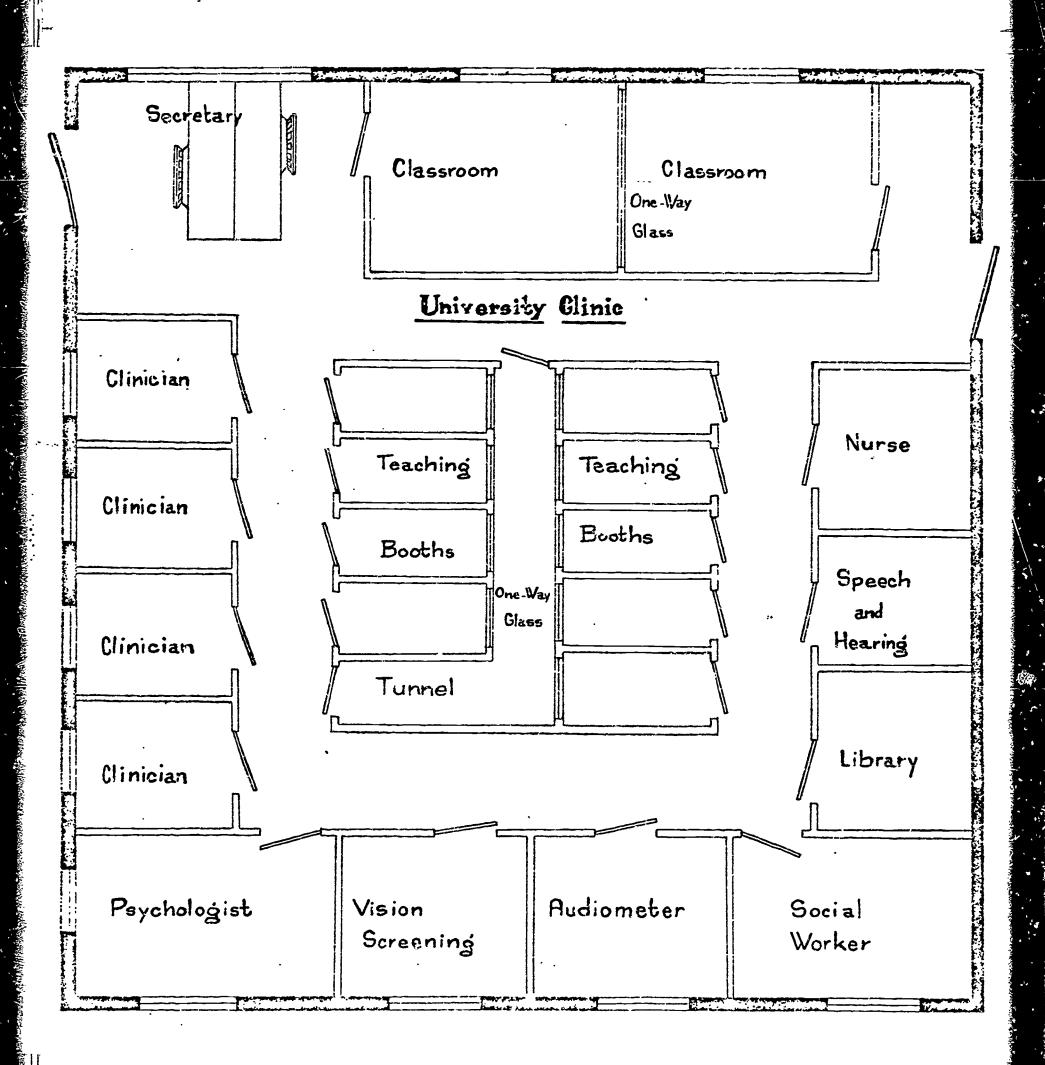
The university clinic may often serve the school administrator as a model. Generally it offers the best available archtype in the diagnosis and treatment of severe reading disabilities. Because it does not face the pressing demands or sheer numbers of a public school system, it can deal with far fewer cases and can offer more comprehensive diagnostic and treatment services. In addition, the university clinic contributes valuable research to the field, provides consultation service to the public schools, and trains diagnostic clinicians to serve in the public schools. (See attached floor plan for a typical university clinic.) Temple University's reading clinic and laboratory school in Philadelphia is one example.

Temple's clinic diagnoses the reading and learning difficulties of any child referred to it. The battery of tests usually takes two days to complete, covering a wide range of physical, social, psychological, mental and intellectual factors. Besides screening for visual, auditory, neurological, and speech impairments, the tests measure:

- . intellectual functioning (IQ)
- . word recognition skills (sight vocabulary, word perception, oral and silent reading skills, skimming ability)
- . spelling
- . auditory and visual discrimination
- . learning aptitude (memory span, attention span, language and cognitive development)
- . lateral and perceptual motor coordination
- . social and emotional adjustment

An informal reading inventory and a standardized achievement test are also given. From an interview with the parents, a developmental case history—including prenatal care, the number of other children in the family, family circumstances, and school history—is prepared. Psychiatrists, social workers, and neurologists are called upon when necessary. The results are written up in a form that parents can understand, and recommendations are made which can be carried out by parents, tutors, or classroom or remedial teachers, as the case may be. The clinic tests nearly 900 children a year and those with severe reading disabilities may be recommended to the University's laboratory school.





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The lab school occupies two buildings, former barracks, several miles distant from the University. A tuition of \$1,200 a semester is charged, and children stay an average of two years. Some have gone on to college, others to vocational schools. Approximately 80 children are enrolled, ranging in age from seven to twenty. The staff includes eleven full-time teachers, ten part-time teachers, and a part-time psychologist. The lab school is nongraded, and the children are grouped and regrouped during the day in sections ranging from three to nine. Two staff members attend every class; and one or more graduate students, working toward their masters degrees, are also in attendance. The children come from neighboring States and from cities as far distant as Denver.

Each child carries with him a clipboard to which is attached his own day's assignments. Opposite each assignment is space for the teacher's frank comments. By the end of the week, the daily log charts a record of his progress. The focus is mainly on the language arts-listening, speaking, reading, and writing-but mathematics, history, geography, science, and related areas are included at appropriate stages. The avenues to learning are not only visual and aural, but factile (touch) and kinesthetic (body movement) as well. The child is started at his present reading level and moved along at a pace he can handle.

For a certain period in the morning, for example, a boy may be working alone on words he missed the day before. No bell rings, but he suddenly puts his list aside and joins a reading group forming in the room. This group will have problems similar to his in spelling, word recognition, or whatever. When the group reading lesson is over, he turns to his next assignment for the day. He may carry a metal box containing the words he has mastered, each on a separate card, and if it is time for him to write a story of his own, he will use them and ask a teacher for others that he needs. This pattern will undoubtedly insure for him some sense of accomplishment at the end of the day.

Diagnostic testing is an ongoing procedure, and the children in the lab school are retested formally twice a year, though not as comprehensively as in the initial diagnosis. Their training is revised accordingly. Usually a dozen or so children in the lab school, almost ready to return to regular school, are in a transitional class, more structured and with greater conformity to the type of classwork they will face when they return to public schools. The public schools have generally been cooperative in placing them at the appropriate grade level.

No report cards are issued, although parents receive letters reporting on the attitudes and progress of their children. In addition, parental interviews are held at intervals.

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It seems bereficial to be able to take children with severe reading disabilities completely out of the regular school system for a year or more and give them the intensive individualized help they need. Also it is beneficial for reading clinicians to have master's degrees representing thirty to thirty-eight hours of graduate work in diagnostic practice and clinical treatment. But the average public school system must consider the expense, the time, and the personnel needed to duplicate such a university program. Frequently, the public school administrator must make some compromises with a model such as that offered by Temple University. But a model serves primarily to provide ideas and need not be imitated slavishly.

The Philadelphia public school system, for example, which surrounds Temple University, uses some elements similar to the Temple University clinic, with adaptations that suit its needs and finances. Philadel-phia's diagnostic clinic has a staff of two directors with doctor's degrees, a secretary, and five teachers in a treatment center. The directors are charged with many duties in addition to testing, including in-service training experiences for reading teachers. About four children a week receive the diagnostic test battery that requires some three hours to administer. The clinic offers remediation for those with serious disabilities in a laboratory school or treatment center located in an elementary school. The lab school has three full-time teachers who can give individual training to some forty-three children one hour a week. A coordinator and a part-time teacher augment the lab school staff.

Once a week, in-service training is offered at the clinic and at the lab school. Under supervision, these in-service teachers give individualized instruction to a child at the lab school, while those who have completed the course help other children in their home schools. Through this in-service training program, the Philadelphia clinic offers service to children and encourages diagnostic teaching.

The waiting list at both the lab school and the clinic is long, and the directors of the program readily admit they cannot test all the children who show symptoms of severe disabilities. They would like to see a clinic and lab school in each of Philadelphia's subdistricts, and the present clinic program is pointing up the need. It is indeed a start.

Public School Clinics

Many school systems, realizing they cannot provide immediate help for all who need clinical treatment, have nonetheless taken the first steps to reach as many as possible. Their programs have a ripple effect, involving not only students but teachers and schools as well, and the benefits spread wider and wider as the program continues. Many show promise in a number of ways.

The programs outlined here have been divided into three categories, according to the emphasis. The program may be designed to reach students directly, train teachers, or cover the greatest number of schools.

Such aims do overlap, since training teachers is a method of reaching students, and many programs place equal emphasis on all three goals.

CLINICS EMPHASIZING STUDENT ASSISTANCE

Columbus, Georgia - The reading clinic at Columbus, Georgia, takes a thousand children from the first through the twelfth grade for training two or three times a week. The staff numbers twenty-nine professionals and paraprofessional persons, and each teacher has five daily classes of eight children. Only children who are two years or more behind grade level (5,000 are in Columbus' Title I schools) are admitted, after an hour's diagnostic testing. The emphasis of the program is on word analysis, comprehension, and reading rate. The Columbus program reaches out into the community as well, with an evening adult education program for public employees, such as post office workers. This type of clinic aims at teaching groups of children and evidently cannot engage in the in-depth diagnosis and individual treatment described in the Temple University model.

Buffalo, New York - Designed for children from the second through the sixth grades, the Buffalo, New York, program buses children to the reading center daily for sessions from a half-hour to an hour. Clinicians work with the children in small groups. In addition, five teachers are given a year's in-service training in remedial reading at the center. They are completely freed from their classes and paid a regular salary for the year while learning and working at the center.

Robbinsdale, Minnesota - Some school systems narrow the grade range in order to cut off seepage. In Robbinsdale, Minnesota, for example, three reading centers have been established to serve 180 students with severe reading disabilities in grades two through four. Students from sixteen public and four private elementary schools are transported to the centers for daily 90-minute sessions in groups of four to eight. The program involves a director, twelve remedial reading teachers, and a special services staff.

St. Louis, Missouri - St. Louis, Missouri, which began reading clinics over two decades ago and has expanded their number to seven, not only treats the children but trains classroom teachers. Each St. Louis clinic has a staff of four teachers and a secretary. A school physician and nurse are assigned to the clinics at regularly appointed times to administer the physical examinations. The school social worker lends a hand when needed.

Each clinic consists of a large, cheerful, book-lined central room with three or four small teaching rooms and an office. A wide variety of books and teaching materials is available as well as all necessary equipment for diagnosis and specific remediation.



After diagnostic testing, the clinic provides treatment for those with severe disabilities and follows up after the treatment is completed. Periodic follow-up reports on clinic cases have had an excellent effect on teachers and administrators as well as the child, giving him the advantage of continuing interest. Class periods are usually forty-five minutes, an hour, or an hour and a quarter. An effort is made to schedule pupils when they can be most readily excused from classroom instruction. Depending on the extent of his disability, the child is either treated on a one-to-one basis by a skilled remedial reading teacher or in a group of three or four other pupils.

CLINICS EMPHASIZING INCREASED SCHOOL COVERAGE

Dekalb County, Georgia - The reading clinic of Dekalb County, Georgia, works with children and also trains remedial reading teachers. It hopes to establish a "satellite clinic" with a remedial reading teacher in every one of the county's schools. Three years after the program began (in 1965), it had trained enough remedial teachers to set up "satellite clinics" in forty-six schools, reaching almost half of the county's hundred-odd schools. Its pace has a slight edge on the county's growth, which sees thirteen new schools a year.

The central clinic diagnoses children referred there and treats those with the more severe problems. Two-and-a-half years after the program began, it had tested 525 children and treated 121.

Children are referred to the clinic by their teachers, through the school principal. The clinic accepts referrals who are behind grade level but not mentally retarded. How far behind they are depends on the grade level. First graders need be only five months behind, sixth graders two years or more below grade level.

The child referred to the DeKalb clinic receives four hours of testing to determine his specific reading difficulties. An hour's psychological test usually has already been given him at his home school. The diagnostic tests cover a wide range of factors, and the parents, who bring the child to the center, are also interviewed. After his difficulties have been pinpointed, the child may be returned to the classroom (with suggestions for help), referred to the satellite clinic in his school (if there is one), referred to other specialized clinics (for the emotionally disturbed, mentally retarded, or child guidance), recommended for a Learning Disabilities Class (which takes children with neurological and pathological problems for fullday across-the-board treatment), or accepted at the center for treatment.

The clinic treats twenty-five to thirty-five children a quarter. They come for an hour on staggered days, alternating three days one week and two the next. Tutored on a one-to-one basis, they remain in the program until they reach their potential or until it is felt they as we been set apart too long. A junior high school student reading at the second-grade

level was brought up to the seventh-grade level after fifty hours in the center. Another student, reading at the pre-primer level, was reading well enough to get his driver's license after two-and-a-half years.

In the satellite clinics, children are taken in groups of five or less, again on staggered schedules, three hours one week, two the next. The grouping, as far as possible, is arranged according to the children's reading levels and reading disabilities. By 1967, nearly 1,000 children were receiving remedial treatment in the schools this way.

The remedial reading teachers in the satellite clinics are trained in the center. More than fifty teachers were trained in the center's first two-and-a-half years. The training sessions last nine weeks, during which the teachers are released full time from school. They are recommended by their principals and, upon return, are given time aside from their remedial reading classes to act as reading consultants and resource people to the other teachers in their schools and to hold interviews with parents. Satellite clinics in the Title I schools each receive Federal funds for materials and equipment.

The clinic trains seven to ten teachers every nine-week session. The course is child-centered rather than textbook-centered, offering practical experience in diagnostic, corrective, and remedial teaching. Each trainee works with one child, under supervision. After completing the program, he receives an hour's in-service training every quarter. The director of the clinic maintains continuing liaison with him as well.

In a school system of 80,000 children, such as DeKalb's, it was obvious that a reading clinic was needed. The county school superintendent and supervisor of instruction had been planning for a clinic before a Title I grant set them on their way. In selecting an initial staff, a principal and a classroom teacher were urged to get their doctorates at the University of Georgia. One became the director of the clinic, the second succeeding him a few years later. Together they trained several clinicians and drew a few more from nearby universities. This was the nucleus of the program.

The clinic is located in the basement of the old Clarkston High School. Besides offices for members of the staff, there is a central meeting room, a library with 10,000 books for use in the clinic or for lending to schools, and four cubicles with bookshelves and blackboards, each monitored by a closed-circuit television system for in-service training and supervision. In addition, there is an observation room with a one-way window. In addition to the director, there are four full-time clinicians on the staff who either have or are working toward their master's degrees. They train the teachers, supervise their work with children, and teach children in the center.

Detroit, Michigan - Detroit's clinic program is aimed at school-wide coverage in a somewhat different way. Portable buildings are set up at school sites, becoming a center for clusters of schools. In 1967, Detroit had three such Communication Skills Centers, each serving fifteen elementary schools. Each of the skills centers is staffed by a diagnostician, a psychologist, a social therapist, and six reading teachers. Children are referred by the feeder schools, through their classroom teachers and principals. On the basis of an informal reading inventory and past school record, children at the center are placed in small groups of five or six. Attendance is for an hour a day, four days a week. After beginning instruction, a child may be sent for additional diagnosis to the diagnostician, the psychologist, or the social therapist, whichever is needed. Otherwise, he remains with the reading teacher. Each center buses in 100 children a day.

Four days are given to instruction and the fifth is devoted to in-service training and planning. Often discussions of individual cases take place at staff meetings which are held at the lunch hour in order to include the principal and teacher from the home school.

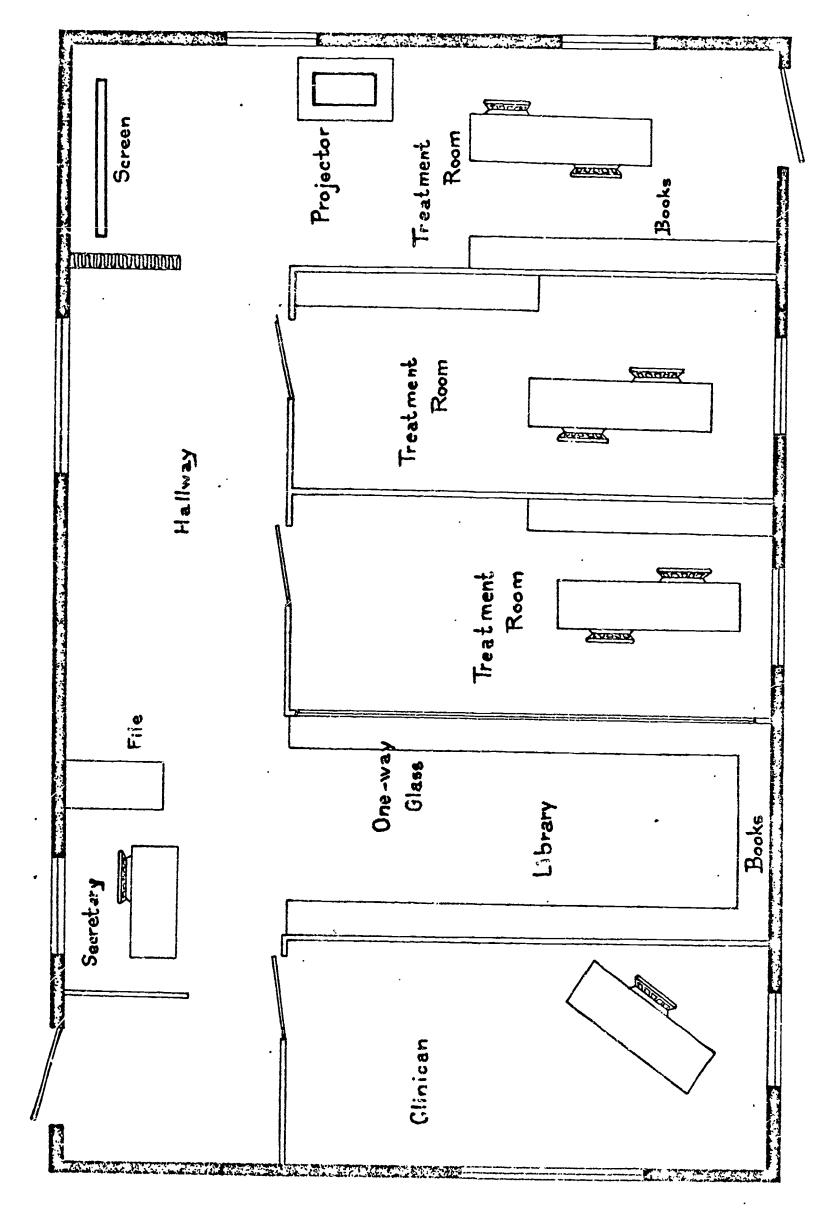
Psychological testing is not the primary function of the staff psychologist. He acts more as a researcher in the field of reading problems, and often helps the teachers to formulate specific techniques for overcoming reading difficulties which they encounter. The social therapist's role at the center is also fluid. She establishes liaison with parents of children in the center, visiting them in their homes and alleviating any fears they may have when their children are singled out for special service. She also focuses on mental health, working in cooperation with the State Department of Mental Health. The center's diagnostician acts as the overall director, coordinating the program with the schools.

Mobile Clinics

Other school systems use mobile vans rather than portable buildings for various aspects of a clinic program.

Palm Beach County, Florida, uses three trailers, 12 by 45 feet, as remedial clinics, sending them to qualifying schools for one semester. Each trailer is staffed with a reading clinician, four reading teachers, and a secretary-aide. The reading clinician does extensive testing, and the four teachers carry out the instructional programs for seriously disabled readers. The children come for an hour a day and are handled on a one-to-one basis or in small groups of up to four. The program reaches children from the second to the fourth grade. (See attached floor plan of a Trailer Clinic.)

In a program involving forty-nine schools in *Wisconsin*, a mobile unit is driven to a participating school and remains there until diagnostic, physical, and psychological tests have been given to all children selected. The program was planned by a committee of school administrators, both public and parochial, school board members, and specialists from Visconsin State University and the State Department of Public Instruction.



Trailer Clinic

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Headquarters for the program are located at the county courthouse in Appleton, and the staff includes fifteen reading teachers, a project director, two psychometrists, a technician, a psychologist, and a social worker. After diagnosis in the mobile unit, small groups of children whose IQ's range from 80 to 100 and whose reading is below grade level (one year or more in the third and fourth grades, two years or more in fifth through tenth), are taken on by the reading teachers, who visit them in their own schools for 150 minutes a week. The teachers work with no more than four in a group and undertake a teaching load of no more than fifty. The children stay in the program until they are reading at either grade level or at their expectancy level.

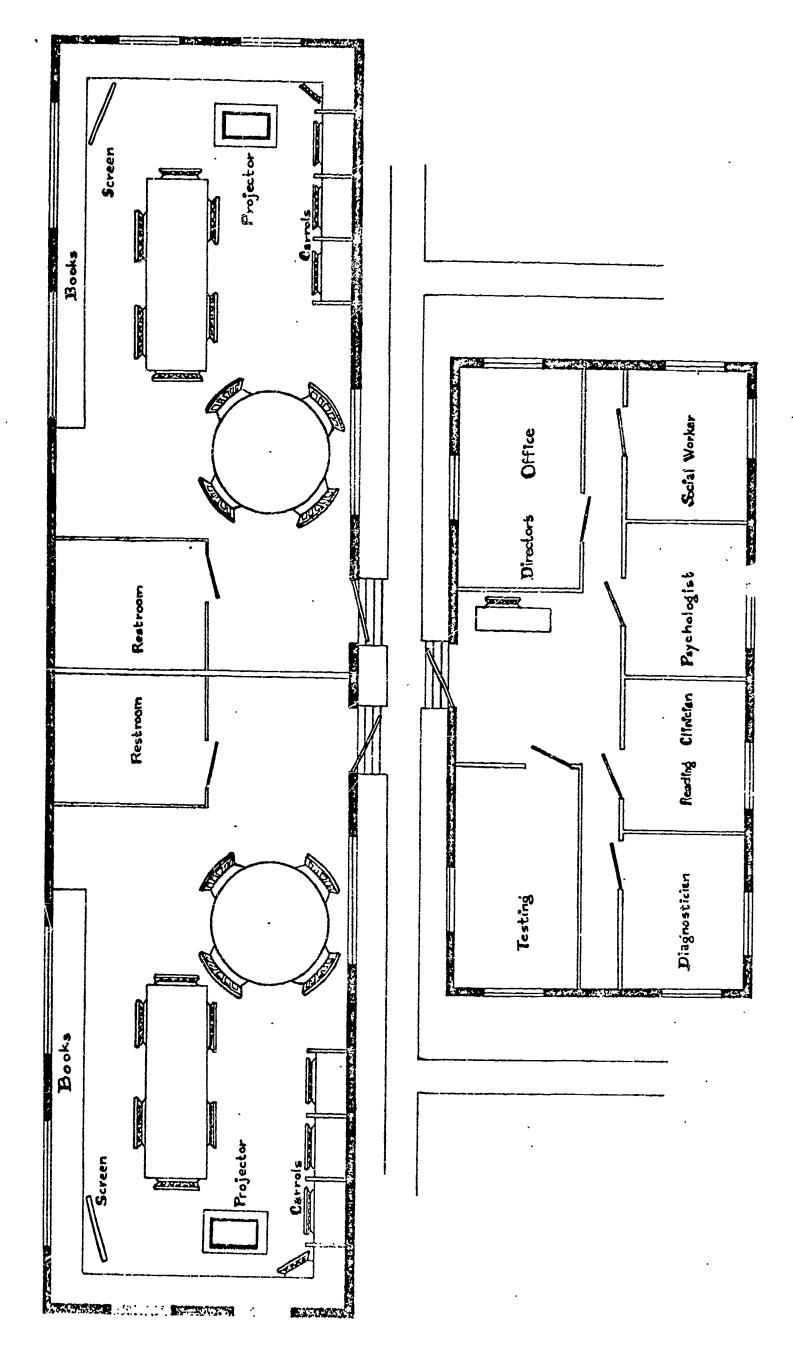
In Downey, California, a mobile trailer, fully outfitted as a diagnostic reading center, goes to the parochial schools in the district. An unusual feature of this program is that a substitute teacher travels with the van and takes over for the regular classroom teacher while a child is being tested. Thus the regular teacher can both observe the testing and supply useful background information to the clinicians. After the child is tested, a reading specialist demonstrates some of the multi-media, multi-level techniques for working with small groups of six to eight children, and the classroom teacher has an opportunity to work with the materials under the supervision of an expert and to borrow those materials appropriate for her problem cases.

CLINICS EMPHASIZING TEACHER TRAINING

Albany, Georgic - The primary aim of the clinic program in Albany, Georgia, is to train classroom teachers to identify problem readers and understand their learning difficulties. The hope is that, if the classroom teacher is more attuned to reading problems and their causes, fewer students will need remedial help in the future. For that reason, selected classroom teachers are brought into the clinic to learn about remedial reading.

In a school system of 21,000 children, it was clear that some kind of remedial reading program was needed in Albany. In half of the schools, the average elementary child was two to three years behind, the average junior high student three to five years behind, and the average senior high student three to seven years behind. With a Title I grant, a reading clinic was set up to serve 18 of Albany's 46 schools.

The director of the clinic sets a limit on the number of children each school can send to the clinic, based on the school's population. The children are chosen, by the principal and teachers who have been trained in the clinic, on the basis of an informal reading inventory and the teacher's judgement. The children come to clinic school daily for an hour for ten weeks. The clinic will take children capable of making progress, including the educable mentally retarded. The diagnostic testing in the clinic provides remediation for 125 to 135 students every



Communication Skills Center

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ten-week session. One session may be devoted to children from the elementary schools, the next children from secondary schools, and the third may be mixed.

The teacher-trainees come for a six-month period, one from each poverty school participating in the Title I program. After an intensive four-week period in which the trainees are introduced to diagnostic, remedial, and developmental theories and given practice in dealing with remedial cases on a case-study basis, their day is divided equally between work at the home school as a resource person and consultant and continued training at the clinic. During the training sessions, eight or nine university consultants give lectures on various aspects of reading disability and help the trainees in evaluating problems they meet. Reading assignments for the trainees in professional books and magazines are extensive. When they finish, they will have completed, under supervision, a case study of their own, including a prescription for remediation. They will have learned to evaluate the physical, social, and emotional factors involved in reading disabilities and to test oral and silent reading, listening ability, work attack skills, and so Trainees will be aware of the merits of different diagnostic testing procedures and acquire a knowledge of the characteristics of measure in standardized and individualized IQ tests. They will be able to recognize reading readiness in the classroom, at all levels, and come to know the various techniques and materials, from phonics and new alphabet systems to tactile and kinesthetic techniques used in treating specific reading disabilities. They will have had practice in treating children on a one-to-one basis and in small groups. Upon their return to school, trainees will be better equipped to recognize severe reading problems, to individualize their programs, and to meet their students' needs. Although these classroom teachers are not expected to treat severe reading disabilities in their classrooms, weir training experience in the clinic will enable them to identify and to refer serious problems to the clinic or another appropriate agency.

They do not necessarily return to school as reading teachers. Currently included in training, for instance, are a social studies teacher and a mathematics teacher. Some, however, may become remedial reading teachers. The others will be better informed in treating minor problems in the classroom and thus ward off some potential severe disabilities.

The clinic staff of thirty includes two part-time psychologists, two social workers, a speech therapist, four clinicians, and reading teachers.

St. Louis, Missouri - The clinic program in St. Louis, mentioned earlier, is also concerned with classroom reading teachers, who are assigned to the clinic for a year. During this period, they become familiar with test administration, gain an understanding of the cause of reading disabilities and their treatment and possible prevention,

and learn more about the nature of severe reading problems. A year in the clinic also provides for these experienced teachers to gain additional perception of reading problems along with training in developmental and corrective techniques used in the classroom program.

Bell Gardens, California - Typical of a program that serves children, teachers, and schools is that in Bell Gardens, California, fifteen miles southeast of down town Los Angeles. Under Title 1, Bell Gardens, a low-income community of unskilled and semiskilled workers and their families, established a clinic for elementary pupils with severe reading disabilities. It functions as a diagnostic and treatment center where specialists in speech, hearing, vision, social work, psychology, and reading work together to determine the cause of a child's inability to read and to prescribe a program to remedy the problem. The pupil stays in the clinical program until the staff is assured he has made sufficient progress to return to his classroom where his own teacher will continue the remedial work.

Six services are offered for the students, teachers, and administrators:

- . diagnostic service
- . remediation program for severely disabled readers
- . enrichment program for fifth- and sixth-grade pupils with average or above average IQ
- . teacher-training program for classroom teachers who plan to teach remedial reading
- . orientation program in the purposes and programs of the clinic for school principals, district top-level staff, school nurses, psychometrists
- . research center to serve district needs in exploring and evaluating new and experimental methods of teaching reading

The clinic is housed in a 60 by 180 foot structure composed of six modular interconnected units. The complex is air-conditioned, self-contained, and expandable. Opened in June 1956, the clinic began as a summer program with 60 pupils. The staff includes a director, two clinicians, and a part-time secretary, serving about 75 pupils at a time. During the year the maximum case load ranges from 250 to 300 pupils who come for 45 minutes a day. Two weeks are given over to diagnosis followed by six weeks or longer of remediation before the child is sent back to his regular classroom with a "prescription" for his teacher to follow.



The Rewards of a Clinic Program

These few brief descriptions by no means cover all clinical programs, however, administrators who have instigated clinical programs and educators who are a part of them are enthusiastic about the promise they hold. "We now have an increased awareness of the causes of reading gailures and of approaches to use in overcoming them," said one. Not only are the clinics helping individual pupils to overcome their reading difficulties, but reading success has improved pupil attendance and reduced delinquency among pupils who were formerly poor readers or nonreaders. "Even the bus trip to the clinic is important," said one teacher whose disadvantaged students have rarely traveled more than a few blocks from their homes. Educators also note more support of school efforts on the part of parents whose children are now being helped by highly specialized personnel.

Despite the problems of finding space, staff, and money, school administrators who have undertaken to set up clinic programs say the effort is well spent.

SETTING UP A CLINIC PROGRAM

The main responsibility in determining the need for a diagnostic clinic and in establishing a remedial program for children with severe reading disabilities rests with the superintendent of schools and other top-level administrators. This is true because the clinic involves many schools and a major financial commitment.

While it is estimated that 1 to 5 percent of the children in any school population will have learning difficulties serious enough to warrant clinical treatment (Strang, 1968, p. 2), it may be that a small school system will not have a sufficient number of pupils with severe reading disabilities to justify the cost. In that case, it may be possible for several small school districts to join forces to survey the need and establish a clinic. Similary, a public school system could join the private and parochial schools in the area to establish one.

A clinic is expensive because treatment of severe reading problems often requires a one-to-one relationship with the child or, at best, one teacher for every three or four children. Furthermore, the services either must be taken to the child or the child must be brought to the clinic. The materials involved are also expensive. Per-pupil cost, however, is not the only consideration. The shortage of qualified personnel also makes staffing a difficult problem.

But clinics can more than justify their cost by providing teacher training and consultative services, as well as diagnostic and remediation services, to the schools. Their effect can raise the standards of an entire school system.

Selection and Referral of the Children

Not every poor reader needs clinical treatment; not every child can benefit (Kolson and Kaluger, 1963, p. 16). Although a line must be drawn somewhere, the first rule to follow is, "Be flexible." Experience has shown that the border-line between moderate and severe reading disabilities is sometimes difficult to ascertain and that a recommendation for non-clinical remediation should not be final.

Guidelines must be set, both for those children diagnosed by the clinics and for those treated by the clinics, but they should be used with discretion. For example, intelligence tests are not necessarily reliable guides. A rigid cutoff point based on IQ tests is questionable (Bon and Tinker, 1967, p. 13). IQ scores vary, depending on the test used, and are too often based on reading ability reflecting merely the frustration level rather than the actual ability of a student with a severe reading disability. Moreover, the clinic program can actually raise a child's is score (Bond and Tinker, 1967, p. 413), and a rise of even a scant five points can mean the difference between a frustrated life and a useful one if a rigid IQ cutoff is maintained. A slow learner must have the instructional pace and techniques adapted to his slow learning ability. The best diagnostic services attempt to discover learning potential from tests not based entirely on ability to read, such as the Wechsler Intelligence Scale for Children.

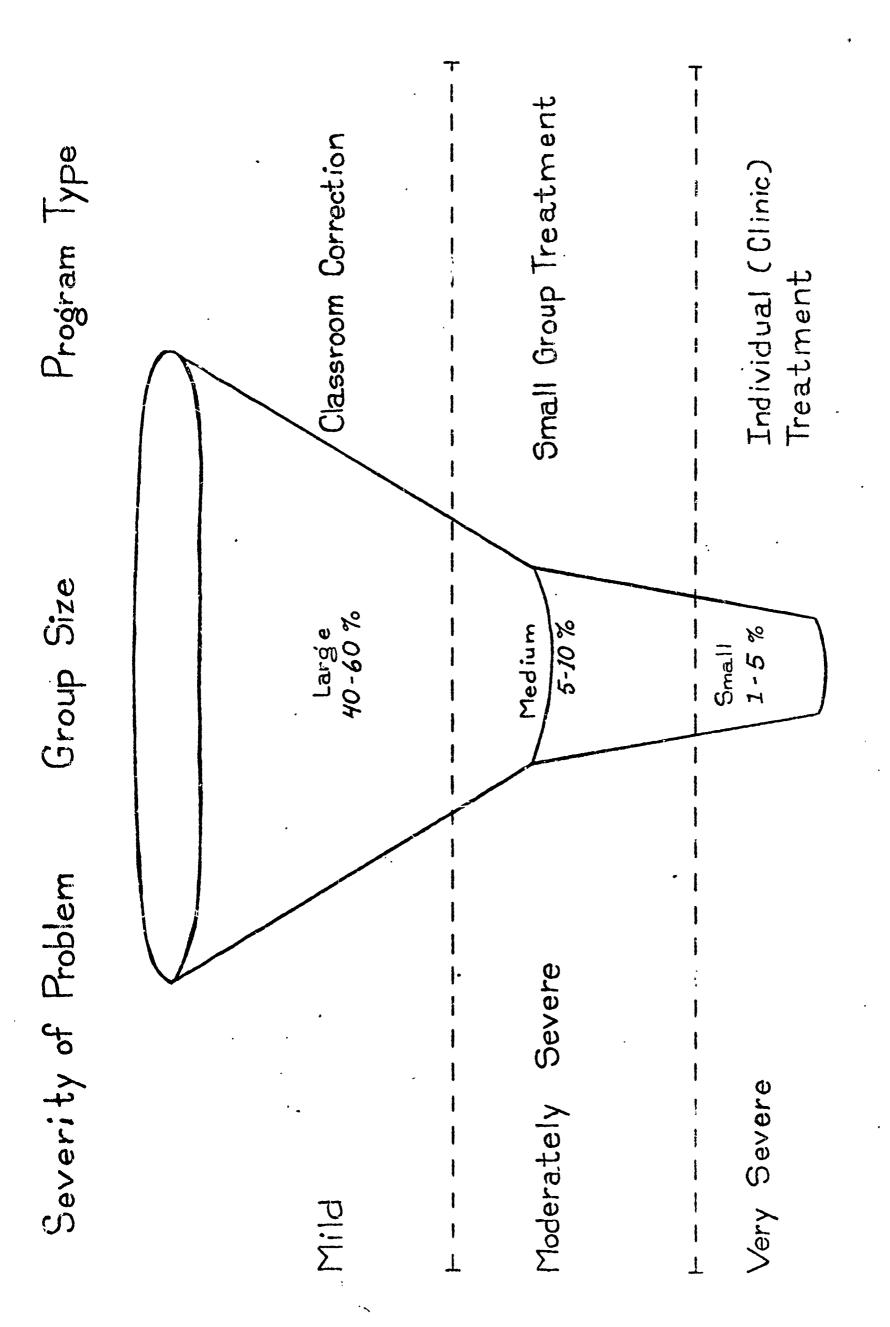
In addition, some school systems have found that even the "educable mentally retarded" profit from being included in clinic programs.

Another criterion that should be evaluated with caution is reading lag or gap, the difference between potential and performance. If the critical lag is set at two years for everyone, then no clinical program could start before third grade, which many agree is already too late. Most experts agree that it is as serious to be behind six months in the second grade as two years in the eighth. DeKalb County, Georgia, for example, uses a staggered measure, beginning with a five-month lag in first grade and rising to two years by the sixth. Children who are two or more years behind are not necessarily children with severe reading disabilities, but the lag criterion provides an initial, rough screen measure. Increasingly, the focus is coming to rest on younger and younger children. The earlier the problems are identified, the better.

Once standards are set for acceptance of children by the clinic, who should make the referral? Frequently, the classroom teacher does since he is in the best position to spot problem readers. Usually his referral must come through the principal. If there is a remedial reading teacher or a reading consultant in the school, of course, they help determine whether a child should be referred. Referrals from either a reading specialist in the school or the principal are usual patterns. Ordinarily it is also the school's responsibility to inform the parents and prepare them for interviews at the clinic.

Once the diagnostic testing is completed, the clinic must recommend the appropriate treatment. Reading treatment programs are usually divided into three categories: corrective (in class), remedial (special teacher), and clinical. If the reading disability is not too serious or the course prescribed too complex, the clinic may return the child to the school. For example, the clinic may return to the classroom a disabled reader who is performing close to his capacity level with suggestions for appropriate materials and techniques. In another case, the clinic may suggest corrective treatment, either by the classroom teacher or a reading teacher in a remedial reading class. If a child's disabilities are severe, however, and the treatment complicated, he will be taken into the clinic for treatment. (See diagram relating group size to severity of problems and type of correction program.)

Unfortunately, many children with severe reading difficulties will be found to have concomitant problems, some of which preceded and possibly contributed to, or perhaps stemmed from, the reading disability (Strang, 1968, p. 63). Children with severe emotional disturbances may not be able to benefit from clinical help because their emotional problems interfere with the treatment. The clinic must decide whether they need medical help before treatment can begin or outside help along with the clinic program.



Testing

There are probably no two severe reading diability cases exactly alike; hence, flexibility in testing procedures is a prerequisite for an effective program. Not every child will require every test and not every test is of equal value.

In general, the diagnosis should include not only reading tests, but also tests of the student's general achievement, achievement potential, vision, hearing, speech, personality, and attitudes.

Though the school administrator cannot ordinarily be an expert in diagnosis and testing. he should be aware of some of the limitations of tests. Some tests overestimate the ability of the child and some underestimate it. Some are valid for small children but lose their validity for children in higher grades. An obvious advantage of clinical testing is the use of a cross-dicipline interpretation of the tests.

The recommended multidisciplinary approach calls for the services of a variety of persons—social workers, speech therapists, and psychologists, as well as reading experts. Teamwork is essential if their services are to be helpful in planning remedial treatment for individual cases. For example, a diagnosis of "emotional interference" with learning to read does little to indicate techniques that can help a child learn to read. The social worker can offer direction and make visits to the home; the psychologist can recommend a motivational strategy; and the reading clinician can map out a plan for reading skills.

An experienced diagnostician, one who has clinical experience and can exercise discrimination in the administration of tests, must be in charge of the testing program and test interpretation. Test results easily lend themselves to misinterpretation, and highly qualified people are required to evaluate them. Testing usually shows strengths as well as weaknesses, enabling the evaluator to prescribe a program that builds on the child's strengths to overcome his weaknesses.

A diagnostic battery of tests requires three to five hours of clinic time, and an interview with the parents usually takes place while the first tests are given. The clinician needs the family background information which the parents can supply; and he, in turn, can give them a better understanding of the purpose of the tests. A followup interview is held to discuss the results; and although such work with parents may be time consuming at the beginning, it enlists their cooperation in the program early. On their cooperation may hang success or failure.

The child's classroom teacher should also be informed of the test results, even when the clinic undertakes the remediation itself. Since most classroom teachers are unfamiliar with individual diagnostic tests and unable to evaluate their results, it is essential to explai the results so the teacher can relate the child's learning abilities and disabilities to the classroom situation.

Clinical testing for severe reading disabilities usually takes place in a central location where the equipment, materials, and clinicians are available. However, more and more school systems are making use of mobile vans to take the diagnostic equipment and clinicians to the schools, particularly in county school systems where schools are widely scattered. Typical equipment would include an audiometer for hearing screening, an instrument for vision screening, instruments for checking visual-motor coordination, psychological test kits for intelligence and personality evaluation, general academic achievement tests, and diagnostic reading tests for various levels. Expenditures for one set of these materials and equipment may total \$2,000.

Staffing and Training

The greatest problem in all remedial reading programs is the shortage of trained specialists. New York City, for example, has only one reading-language specialist for approximately every ten schools. The shortage of clinicians who deal with the severe reading disabilities is particularly acute.

Not only are reading specialists needed, or a clinic staff, but also psychologists, social workers, and other specialists. As was noted earlier, these specialists must be oriented to reading problems so that their recommendations can be related to the remedial program planned for a child in the clinic or in his home school.

The type of staff and the numbers needed will, of course, depend on the kind of program undertaken and the numbers of children involved. For instance, if children for a clinical program are drawn entirely from the slums of a city, a social worker experienced in dealing with environmental factors would be desirable.

One example is the staff of the Columbus, Georgia, clinic program, serving both parochial and public schools of Muscogee County, which has, in addition to the director of the program, five specialist examiners, nine remedial teachers, four secretaries, one part-time typist (a junior high school student), four bus drivers, and one part-time maid. Some 150 students arrive at the clinic every hour, brought by buses which operate eight hours a day, five days a week.

The staff at Albany, Georgia, to give another example, numbers thirty and, in addition to remedial teachers, includes the director, four clinicians, two assistant clinicians, two social workers, two part-time psychologists, a speech therapist, and a bus driver.

The increading development of the numbers of school clinics makes it difficult for colleges and universities to train sufficient staff members to meet the demand. As a result, many clinics find that they must undertake their own training program in order to give the children the really individualized instruction they need. In addition to clinic teachers, some clinics add training for classroom and nonclinic remedial teachers as well.

It has been found that inexperienced remedial teachers tend to rely too heavily on a reading kit or on traditional classroom formats, thus precluding a problem-oriented individual approach. Some even resort to developmental program techniques and materials. Clinics with in-service training programs remand the new clinic teacher to focus on the learning problems of the individual child.

The length and purpose of a training program varies from clinic to clinic. Graduate study in Temple University's program takes a year or longer; the in-service training program in Albany, Georgia, requires six months; and that in DeKalb County, Georgia, lasts nine weeks. The first awards master's degrees to clinicians, the second is for classroom teachers, and the third for remedial reading teachers.

Clinic staffs frequently conduct in-service sessions for classroom teachers, explaining procedures of the clinic and demonstrating materials and methods used. Far too often, however, knowledge of the clinic program fails to reach the classroom teacher, who knows only that the child disappears for an hour each day. Obviously, without classroom cooperation and reinforcement of clinical techniques, the child's progress in learning to read may be inhibited, if not completely deterred.

Teachers given an opportunity to observe and understand the clinic program operation are intrigued. "I didn't realize so many problems exist which cause reading difficulties," said one. "I'm learning something new every day about materials and equipment," said another.

Meetings between the clinic staff and the teacher can be an important factor in providing a rounded program for a child. Unless the participants are clear as to what they are expected to contribute to the discussion of a case, however, such meetings can be vague and a waste of time.

The shortage of reading specialists is leading to innovative methods of staffing. In Arkansas, the State University's medical school has trained 100 members of the Federated Women's Club to administer diagnostic tests, which are then scored and interpreted by staff psychologists. More than 6,000 children have been evaluated this way. The university now plans to train the same group of women to become reading tutors, for work in homes as well as schools. With adequate training, supportive personnel can perform many of the routine takks in a clinical operation.

Services

Some clinics attempt only the diagnosis procedure, later referring the child, with prescriptive measures, either to other agencies, to the remedial program of the child's school, or to his own classroom. Diagnosis without treatment does little for the child. Once the diagnosis of a reading problem has been made, the child should be provided with appropriate treatment.

Most clinics do offer treatment based on the diagnosis. Individually prescribed clinical treatment is aimed at specific learning disabilities. A number of techniques--visual, auditory, kinesthetic, tactile--may be employed.

A child with problems in visual-motor coordination, for example, may engage in a series of exercises, such as making believe he is a puppet or a jack-in-the-box, skipping, hopping, puddle jumping, and tracing forms with his fingers or with a pencil.

A child who has failed to understand the relationship between speech and print may be asked to dictate his own experience stories to the teacher, then learn to read them back from a typewritten copy. A clinic, however, will not only teach a child the skills to advance his reading and learning ability, but will also try to improve his attitude toward himself and his reading. A wide selection of materials must be available to stimulate reading interest.

As with diagnostic techniques, it is not essential for the school administrator to be an expert on all of the many effective materials and methods. That is the function of the clinic director. However, it is only reasonable to expect the superintendent to be informed of the general approaches used in his clinic and to encourage evaluation of specific techniques so that he is able to effectively modify if modifications are needed.

Just as there are wide variations in materials and methods used, so are there diversities in the amount of time spent by the children in the clinics. Good results have been achieved with a child attending the clinic three times a week. One study showed no significant differences between effects of remedial assistance offered once a week and that offered daily. What is probably the key is the consistency of practice on a skill, whether in the clinic, the school, or the homeroom. Many agree that the task of scheduling is a "headache" but can be worked out with the schools. In some programs, the children attend the clinic all day for several weeks before returning to their regular classrooms. The length of time a child stays in the clinic program, of course, should depend on the extent of his disability and on his response to treatment.

An important part of the service offered by any clinic is the followup on the child's progress after clinical treatment and the followup on those with less severe reading problems after their referral to their schools. Far too often, no followup is provided for or it occurs only on paper. Yet the followup is one of the most important aspects of the work of an effective clinic. The directors of the Philadelphia Public School Clinic feel that their followup on diagnosed cases creates a significant impact on the progress.

Cost

The cost of establishing a clinic varies with the program. It depends on the number of children to be served and the kinds of services the clinic sets out to perform.

Correcting severe reading disabilities is an expensive operation and becomes more expensive in direct ratio to the seriousness of the problems. Equipment alone costs a great deal. Audiometers, telebinoculars, and other equipment, for example, create high initial expenses, although they are nonrecurring expenses. Training materials also are expensive for those clinics attempting to carry on truly individualized programs. Average textbook expenditures for elementary pupils are only \$8 annually, but costs for clinical materials are considerably more.

The most expensive element in the clinic operation is, of course, the staff. Instead of the classroom ratio of one teacher for twenty-five or thirty children, the clinic ratio is often one teacher for six or eight pupils. A teacher working on a one-to-one basis can see only six or seven students a day it she is to have any time for reports.

Because of the variation in types of clinics and the services they offer, it is impossible to place a price tag on clinic costs or even to offer a range of costs. The following examples, however, may serve to give the administrator some idea of costs involved.

DeKalb County, Georgia, started its countywide program with a \$40,000 grant setting satellite clinics in Title I schools which receive \$3,000 for remedial materials. The clinic at Albany, Georgia, spends \$300,000 of a \$500,000 Title I grant for its reading materials and salaries.

Broward County, Florida, has budgeted \$108,135 for its mobile clinic project. The costs are broken down as follows:

\$33,000 for five trailers and one tractor

4,500 for tractor driver, gas, and oil

1,250 for custodial services

2,000 for utility hookup

16,960 for equipment

31,375 for instruction (staff and materials)

19,050 for administration

Neighboring Palm Beach County has a mobile program budgeted at \$72,705. Its costs break down as follows:

\$23,466 for three mobile reading centers and furniture

34,650 for salaries for one clinician, four reading teachers, and one secretary--2 in each van

7,890 for reading equipment

6,698 for reading materials and books

The following table gives additional information on representative costs of clinics across the country.

COST OF SPECIAL READING PROGRAMS

	Contract	Grace Leinen	Estelle Howington DeKalb Schools Reading Ce. 955 N. Indian Creek Dr. Clarkston, Ga. 30021	Arthur Emerson, Coord. Downey Unified Sch. Dist. 11627 Brookshire Ave. Downey, Calif. 90241	Tracy F. Tyler, Jr. Director, Learning Centers Independent Sch. Dist. 281 Robbinsdale, Minn. 55422	Walter A. Kapp Director of Special Educ. Board of Education 1616 South Grand Blvd. St. Louis, Missouri 63104	John L. Spagnoli Director of Reading Board of Public Instructior 6th Street North West Palm Beach, Fla. 33401
COST OF SPECIAL READING PROGRAMS	Cost	\$206 per pupil for 200 pupils	\$195,000:1st year 319,000:2d year	<pre>\$ 18,547 \$252 per pupil for 72 pupils</pre>	\$144,373 \$540 per pupil for 235 pupils	\$240,000	\$ 53,460 - yearly cost of operation for each trailer
	Description	Clinic and library with staff of 6 in an elementary school serves inter- mediate grade children with reading difficulties. Includes satellite reading centers and busing of children.	36 satellite clinics housed in existing school buildings, each staffed by one teacher.	Traveling reading unit (trailer) provides diagnostic services to nonpublic schools. Includes substitute teacher.	Special classes for the retarded; resource teachers for visually handicapped; home and hospital tutoring; speech and language therapy; psychological and psychiatric services; social work services; educational consultive services.	Reading clinic designed to treat children with reading difficulties and to train teachers in the materials and techniques of teaching reading.	Clinician and 4 teachers provide diagnosis and instruction for 6 class periods per day for 226 days in 4 mobile reading clinics
	City	Cedar Falls, Iowa	Clarkston, Georgia	Downey, California	Robbinsdale, Minn.	St. Louis, Missouri	West Palm Beach, Fla.

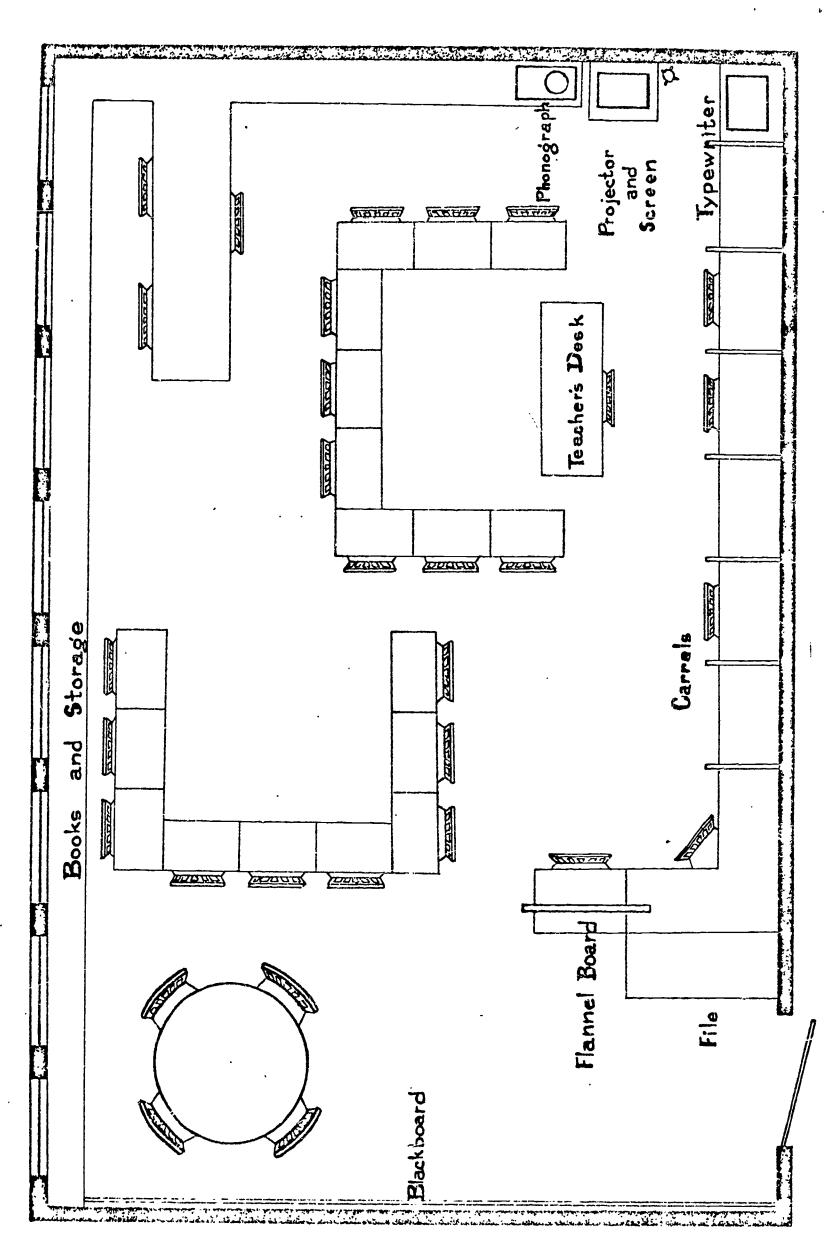
The buildings used for clinics vary from a remodeled corner of a school in Cedar Falls, Iowa, to an abandoned beauty school in Phi'adelphia, a courthouse in Appleton, Wisconsin, a warehouse in Bay City, Michigan, a former hosiery mill in Albany, Georgia, and an unused school building in Buffalo, New York. Almost any kind of a structure can be adapted; but the remodeling should create a cheerful, well-lighted, quiet atmosphere, a place conductive to learning. The machinery and equipment are usually clustered, and often another space is allocated to a library and reading room. Carrels which provide the child an opportunity to be alone and work quietly are important. The teachers' offices, if large enough, can double as instruction rooms with the addition of a table and a few chairs. Small-group instruction rooms occupy the remaining space. (See two attached floor plans.)

Coordination

Usually the most difficult part of a clinical program is making sure that its activities are coordinated with those of the regular school program. This matter cannot be left to chance. A central office administrator must take the chief responsibility for seeing that coordination is planned for and actually achieved.

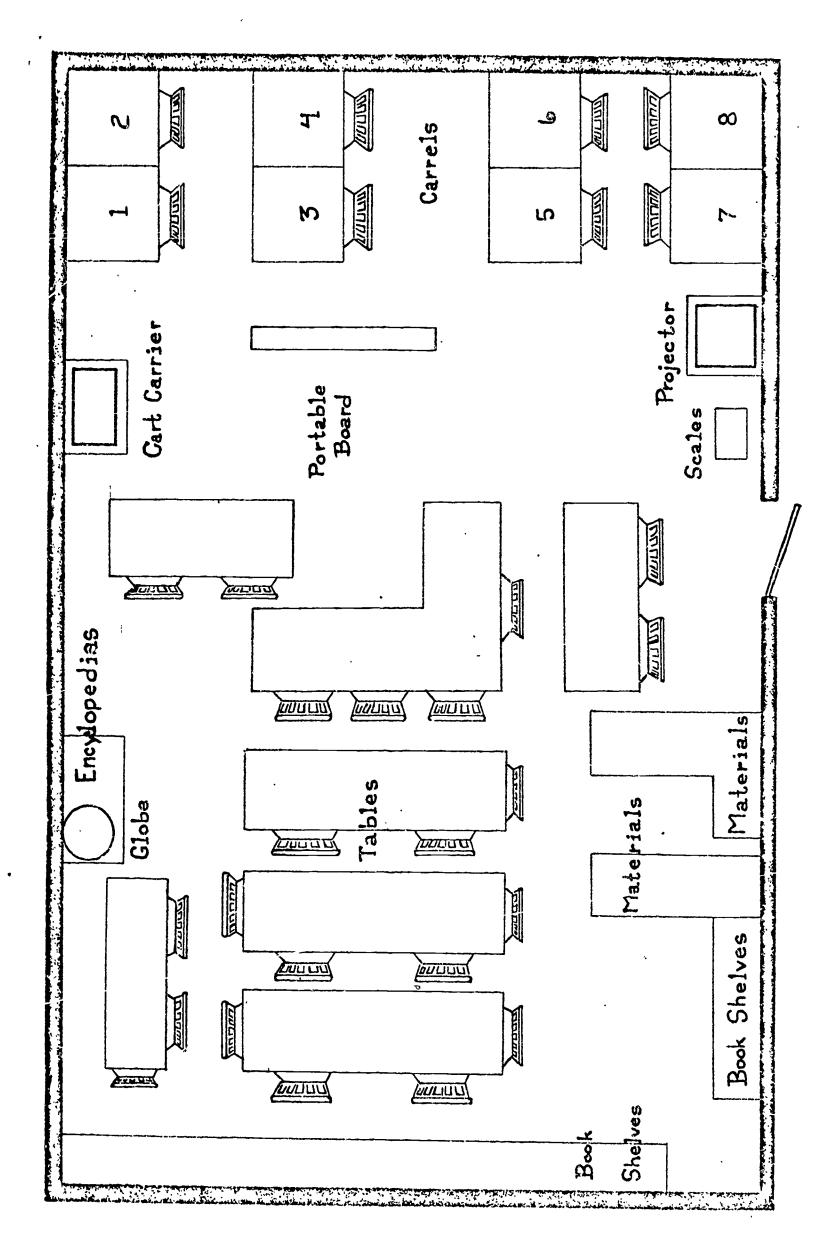
Problems of coordination come from all sides. Principals are occasionally reluctant to release classroom teachers for orientation or training at the clinics. But unless teachers—not only the classroom teachers but the entire staff—understand the importance of the clinical program, they may be reluctant to release the children from their classes to attend clinical sessions. The children themselves may be reluctant to go to the clinic if their appointments are scheduled at a time which interrupts enjoyable periods of the school day. For instance, a child who likes art should not be asked to forego his art class in order to go to the clinic if it is feasible to arrange otherwise. Physical education classes may be important for children with perceptual difficulties and, if possible, should not be missed. If it is convenient, the child's clinic appointment should coincide with his regularly scheduled period for reading.

Coordination between staff and classroom reading teachers is especially vital to the child's improvement. If the clinic staff recommends new material with which the classroom teacher is unfamiliar, he should ask for a demonstration of its use. If the clinic recommends a classroom program for the child, it should be sure the program can actually be carried out in a classroom and that the teacher understands it. Classroom teachers who have students assigned to the clinic may feel this somehow reflects on their ability. They, too, have to be led to understand how reading disability may occure and how the programs of the clinic may overcome such disability. Furthermore, familiarity with the clinic program aids classroom teachers to accomplish more effective individualized teaching and to better recognize existing reading problems. The greatest hope of schools for preventing more cases of severe reading disability lies with the classroom teacher. Understanding the clinic program helps



Classroom Grouping





School Clinic Learning Center

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elementary teachers particularly in spotting severe disabilities earlier. This is important because the earlier the detection, the greater the chance for a cure.

Preliminary Policy Considerations

Before attempting to fund a clinic, the administrator should consider all the factors that will have an influence on its ultimate operation. A number of policy considerations are listed here, and others which apply to any local circumstances should be added.

- 1. Will the clinic serve a single school, a single system; or an entire area? If an area, will both public and private schools use its services?
- 2. How many functions will the clinic fulfill--diagnosis, treatment, recommendations for remedial help in classroom, referrals to treatment centers, or all of these?
- 3. What staffing will be necessary to provide stability in the following areas?
 - . Testing
 - . Corrective treatment
 - . Parental guidance
 - . Clinic-teacher coordination
- 4. What members of the present staff could function in a clinic with a few additional university hours or other special training?
- 5. What criteria will be used to determine which students need clinical diagnosis?
- 6. What criteria will be used to establish a necessity for clinical rather than classroom treatment?

Steps for Setting Up a Clinic

- 1. Establish an advisory committee (administrators, teachers, supervisors, and consultants).
- 2. Survey need for clinic in school district.
- 3. Determine financial commitment to clinic operation.
- 4. Select a clinic director wo will assist in hiring the personnel.
- 5. Identify facility in which clinic will operate.

- 6. Recruit personnel to staff clinic.
- 7. Establish guidelines for referring students to the clinic.
- 8. Establish guidelines for transportation and scheduling.
- 9. Provide schoolwide in-service education to explain operation of reading clinic.
- 10. Provide for in-service training for clinic staff.
- 11. Provide for an adequate supply of materials and equipment.
- 12. Establish guidelines for followup on all clinic cases.
- 13. Provide at least two months' lead time for clinic staff to work out testing procedures, forms, and general operating procedures.

A Final Word

Until fairly recently, the opportunity for correction of severe reading disabilities was available only to the wealthy or fortunate. However, even if one could afford treatment, the clinics, the personnel, the methods, materials, and techniques were scarce.

Today, with increased emphasis on the importance of reading and with increased financial assistance available for experimentation, the benefits of clinical treatment are being extended to many children. The supply of materials --developed from demonstration centers, teacher-directed project, and textbooks, equipment, and games publishers --has multiplied greatly in recent years. Techniques are continually being modified and perfected as research and experience combine to prove which hypotheses are valid. A tremendous amount of knowledge concerning severe reading disabilities and how to overcome them has been amassed in the past ten years.

However, the programs are still expensive—a real problem for every top-level school administrator who is already pressed for funds. Trained staff members for the programs, in the numbers needed, do not yet exist. Crowded school systems, often needing more space for normal school activities, now must find space for clinical services.

Yet the only hope for most children with severe reading disabilities lies in school-connected clinics. Furthermore, the only hope for widespread early detection rests with the pioneer work in diagnostic teaching which the clinics can encourage. Administrators with vision and a sense of responsibility for the children of today and those of tomorrow will find a way to make clinical services available.



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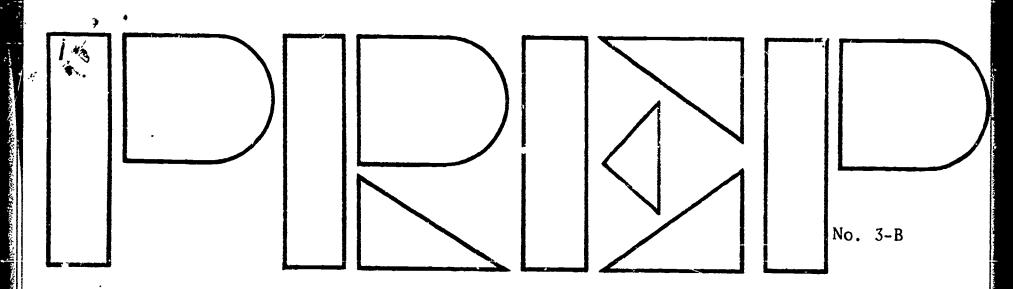
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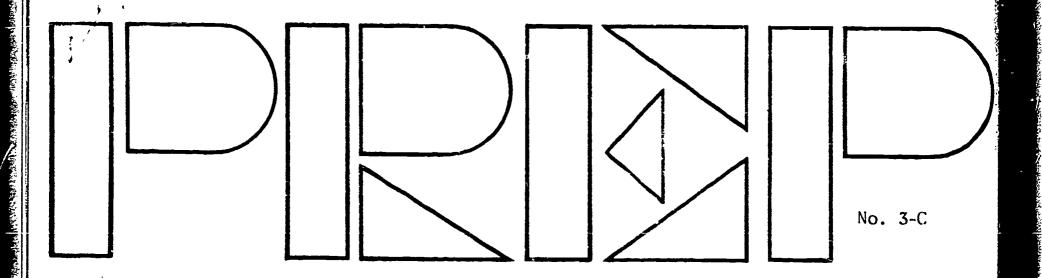
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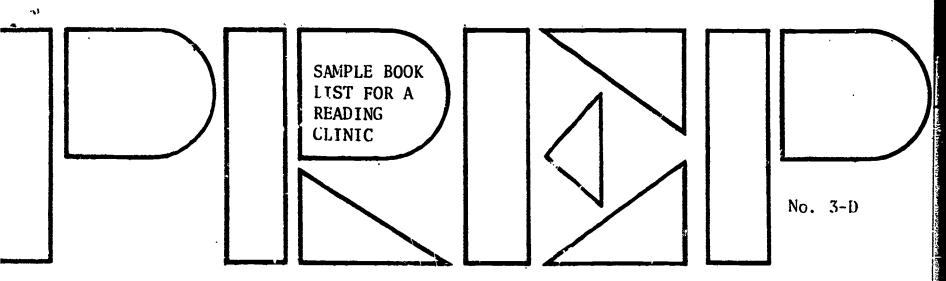
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Building Reading Power	Chas. E. Merrill	5th	3-5
Building Reading Skills	McCormick-Mathers	1-6	1-6
Computational Skills Dev. Kit	Science Research		6-9
Cyclo-Teacher (Teaching machine)	Field Enterprises Educ. Corp.		
Deep Sea Adventure Series	Harr Wagner	3-10	2-6
EDL Skills Library	Educational Dev. Lab.	,	3-9
EDL Word Clues	Educational Dev. Lab.		7-93
First Adventures in Learn- ing Program	Associated Ed. Services Corp.		
Gates-Peardon Practice Exercises in Reading	Bureau of Publications, Columbia Univ.		2-6
I Want To Be Books	Children's Press	k-3	1
Invitations to Personal Reading	Scott, Foresman	•	1-6
Jim Forest Readers	Harr Wagner	1-6	2-4
Kaleidoscope of Skills: Reading	SRA		5-7
Learnings in Science II	SRA	4-6	

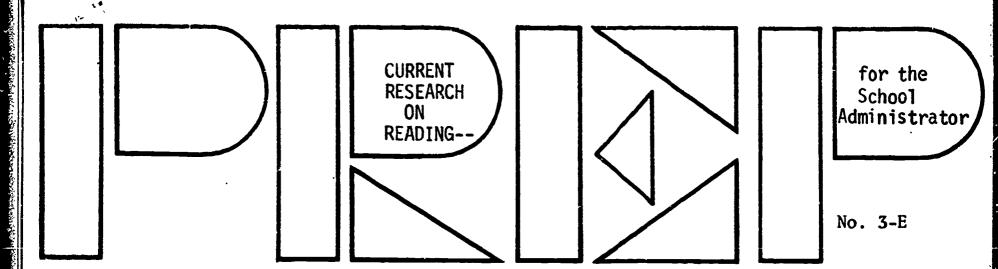
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TITLE	PUBLISHER	GRADE LEVEL	READING LEVEL
Lessons for Self Instruction in Basic Skills (Reading)	California Test Bureau		3-9
Literature Sampler	Encyclopedia Britannica	4-6	
Little Owl Series	Holt, Rinehart, Winston		k-2
McCall-Crabbs Stand. Test	Bureau of Publications, Columbia University		2-12
Morgan Bay Mystery Series	Harr Wagner	4-10	2-8
New Practice Readers	Webster-McGraw-Hiil		
Pilot Libraries	SRA		4-8
Programmed Reading	Webster-McGraw-Hill		Preprimer-4
Reader's Digest Adult Readers	Readers Digest Ed. Service, Inc.		1-3
Reading Essentials Series	Steck Vaughn Co.		1-8
Reading Spectrum	McMillan		4-6
SRA Reading Laboratories	SRA	·	K-college
Spelling Work Power Lab.	SRA	4-7	
Sullivan Reading Program	Behavioral Research Lab.		Preprimer-4
Torchbearer Library	Harper-Row		
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The following selected documents on current reading research should be of interest to superintendents and other top level school administrators who must make decisions concerning the reading program and the treatment of reading problems in a school or school system. These documents have recently been entered into the ERIC system and are available from the ERIC Document Reproduction Service, The National Cash Register Company, 4936 Fairmont Avenue, Bethesda, Maryland 20014. The citation below includes the identification number of the document, the number of pages, and the cost of ordering it, either on microfiche (MF) or hard copy (HC).

"A Center for Demonstrating the Teaching of Reading to Students in Grades 7-12." ED 013 719.32 p. MF - 25¢; HC - \$1.70

"Strengthening Reading Services Through Increasing Provisions for Elementary Reading Centers." ED 017 405. 37 p. MF - 25¢; HC -\$11.95

"A Suggested Method for Preschool Identification of Potential Reading Disability." ED 015 114. 40 p. MF - 25¢; HC - \$2.10

"Studies on Reading Disabilities in the Elementary School." ED 014 400. 22 p. MF - 25¢; HC - \$1.20

"Mechanical Aids in the Teaching of Reading." ED 015 109. 18 p. MF - 25¢; HC -\$1.00

"USOE-Sponsored Research on Reading." ERIC/CRIER Reader Review Series, Volume 1, Bibliography 5. ED 016 603. 104 p. MF - 50¢; HC - \$5.30

"Published Research Literature in Reading, 1950-1963." ED 012 834. 398 p. MF - \$1.50; HC - \$20.00

"Departmentalization of Reading in Elementary and Secondary Schools." ED 014 390. 28 p. MF - 25¢; HC - \$1.50

"Conducting an Inservice Reading Program at the Secondary Level. Grades 7-12." ED 023 558. 52 p. MF - 25¢; HC - \$2.70

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