

The Visually Handicapped Child

AT HOME and SCHOOL

**Developments and Trends in Educational Programs
for Blind and Partially Seeing Children**

By

JOHN WALKER JONES, *Specialist for
Education of Visually Handicapped*

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE
ANTHONY J. CELEBREZZE, *Secretary*
Office of Education
FRANCIS KEPPEL, *Commissioner*

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FOREWORD

INFORMATION ABOUT developments in the field of education of visually handicapped children and about resources available to assist educators in their efforts to initiate, extend, and improve educational programs for these children appears in a wide variety of pamphlets and professional journals. An attempt is made in this bulletin to summarize recent developments so that this information may be more readily accessible to those involved in planning and administering programs for children who are handicapped in school because of visual loss or impairment.

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ERIC R. BABER,
*Assistant Commissioner,
Division of Elementary
and Secondary Education*

RALPH C. M. FLYNT,
*Associate Commissioner for
Educational Research and
Development*

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Stanislaus Co. Public Schools, Modesto, Calif.

**A multiple approach to learning facilitates meaningful concept formation
by the visually handicapped child.**

CHAPTER I

Introduction

THE TERM visually handicapped as used in this publication applies to children who either have no vision or whose visual limitations after correction result in educational handicaps unless special provisions are made. The bulletin is *not* concerned with children whose vision can be brought up to normal or near normal by treatment or glasses, thus enabling them to participate fully in the regular school program.

Visually handicapped children have demonstrated that they are more like those with normal vision than they are different from them. They have the same basic physical, intellectual, and emotional needs as all children. In addition, they have some special needs caused by their visual impairments. Most of them can be assured of becoming mature, independent, contributing members of society when provided with competent eye care, good environment, and suitable educational programs. The extent to which schools meet the special educational needs of these children and provide equal educational opportunities for them will do much to determine whether the country is to have the benefit of their talents.

The number of visually handicapped children enrolled in the Nation's schools has risen sharply in recent years. Special residential school enrollments have also mounted steadily. Between 1948 and 1958 the number of local public school systems reporting enrollments of blind children increased 10 times. During this same 10-year period public school facilities for children classified as partially seeing nearly doubled. Not only have programs been expanded, but new philosophies and different types of programs have also evolved.

The increased number of very young visually handicapped children and the fact that more of these children than ever before remain at home to receive their education in local school programs have led to a growing concern for the effect of adverse parental attitudes and reactions on their development. This concern has stimulated interest in establishing, expanding, and coordinating parent counseling programs by personnel in schools and other agencies conducting these programs. This and other aspects of parent-child and home-school relationships are explored in chapter II. The appraisal procedures

used to select those children with partial vision who are in need of special education are rather complex and have undergone considerable change in recent years. This aspect of the school program is presented in some detail in chapter III. Also included in this chapter is a summary of some of the basic instructional needs of visually handicapped children for which schools make special provisions.

Even though the number of visually handicapped children has increased significantly during the past two decades, the incidence and prevalence of these children in the school population remain comparatively low. In many instances several school systems or counties cooperate in supporting special instructional programs. The systematic development of comprehensive school programs for these children, however, has been especially successful in States which have long-range statewide plans. State departments of education are assuming an increasingly active role. Every State department of education has at least one person on its staff with responsibility in the field of special education, and many are employing specialists in the education of visually handicapped children.¹ This movement, along with developments in residential and local school programs and some considerations involved in planning, developing, and administering special educational facilities for visually handicapped children, is reviewed in chapter IV. Chapter V contains a listing of some of the national sources from which educational aids and professional literature may be secured.

¹ Romaine P. Mackle and Lynell Littlefield. *Special Education Personnel in State Education Departments, September 1962*. This list is compiled each fall by the Education for Exceptional Children Branch of the U.S. Office of Education and is available without cost upon request.

CHAPTER II

The Child at Home

PARENTS of visually handicapped children face many problems. Authorities planning school programs for these children should recognize that some of the parents will require professional assistance if they are to develop satisfactory relationships with their children. If the problems remain unresolved, they may have lasting effects on the degree of success these children have in school and on their total life adjustment as well.

The child who is handicapped by a visual loss or impairment must have the love and care of his parents just like his normally seeing brothers and sisters. He may have even greater need for their affection and understanding if he is to make a healthy adjustment to his defective vision. Many parents are realistic in their attitudes toward their child and his handicap. When told by the eye specialist that the eye condition cannot be improved, they begin to study possibilities for care and education. Such parents are able to make constructive plans. Their objective reaction to the handicap often is reflected by the child's self confidence and favorable progress.

Other parents find the task more difficult. In looking forward to the arrival of a baby, they think of one who is normal and not handicapped. All parents are saddened and somewhat bewildered when they discover their baby is blind or partially seeing or that such a condition has developed in an older child. Since visually handicapped persons, particularly children, are relatively few in number, many parents have never known such a child. They may not recognize the basic similarities of all children and feel that they cannot share experiences with parents who have children with normal vision. The only blind person some parents have known may be an elderly man or woman sitting dejectedly at home or one soliciting funds on a street corner. These thoughts, along with a fear of doing the wrong thing for a child they cannot understand, may interfere with the normal parent-child relationship. Other parents may resent having a handicapped child and blame themselves or their families for the child they look upon as defective. Without help, such feelings may make it impossible for parents to see the potential within each child

to become an active, happy, and responsible person filled with youthful zest for living.

Parents need not openly express their feelings. Some continue to anticipate the child's every need, dressing and feeding him long after he is old enough to learn such skills. Others shower their children with material things but are unable to give them affection. The visually handicapped infant or child who is deprived of personal contacts with warm accepting parents, even more than the child who can react to the visual stimuli around him, may be prone to withdraw into a restricted world of his own in search of substitute satisfactions. Undesirable behavior patterns may arrest development at a low level. While the degree of satisfaction derived from such behavior is generally very limited, it may be sufficient when combined with fear of reaching out for more normal personal relations to make the child resist skilled professional help at a later date. Counselors who have worked with parents of visually handicapped children frequently stress two points in connection with parent counseling programs: (1) Assistance to these parents should be made readily accessible and (2) the parents should be advised of the availability and source of the counseling service at the earliest possible moment following the diagnosis of blindness or severely limited vision in their child.

Parent Counseling Programs

The need for early and continuing assistance, along with the fact that several persons and agencies within a community and State have helpful services which may be available to parents of visually handicapped children, has led to the development of specialized counseling programs in some areas. Counselors are provided who have knowledge of some of the medical implications of eye conditions commonly found among children, of the total development of visually handicapped children, and of resources in health, education, and welfare to assist in meeting individual needs. Home visits are generally an integral part of programs established under such auspices as public or private agencies for the visually handicapped, residential schools for the visually handicapped, city or State departments of education, State departments of health or welfare, and hospitals or clinics.

Persons associated with these programs report that the supportive services of professional workers assigned to families of visually handicapped children have been beneficial in many ways. Parents profit from opportunities to gain some understanding of their feelings and to share experiences with others. Even those with very constructive attitudes can be aided in helping their children develop daily living

skills and readiness for school placement at the usual age. They can be helped to realize the importance of giving their children every opportunity to have firsthand experiences which will be meaningful to them as blind or partially seeing children and of encouraging them to assume responsibilities appropriate for their age. The services of these counselors have been especially effective in helping parents of young children establish confidence in themselves and realize the similarities between visually handicapped children and those with average vision. They also have come to be used increasingly with parents of school-age children serving as a liaison between the school and the home.

Many parents report how alone they feel upon learning their child is visually handicapped. Help in locating the type of assistance they need may be obtained from visiting the nearest school or by writing to the State department of education, a residential school, or the State commission for the visually handicapped. Principals of local public schools often can provide parents with information about special education programs and make referrals to parent counselors or to specialists in other agencies. The schools, too, profit from an early school visit by parents even while their child is still an infant. Schools can serve these children more effectively if officials are given detailed information about children *prior* to application for enrollment. Advance planning helps assure the provision of specialized instructional services, equipment, and materials. This is especially true in cases where additional teachers may be required or when books and equipment must be purchased or custom-made for children entering school.

Levels of Expectation

The establishment of realistic levels of expectation for each visually handicapped child both in the home and at school is probably more important than most parents and teachers realize. Adherence to appropriate performance standards helps motivate these children to adjust to their physical limitations. It may help them put forth the extra effort required to work up to the level of their ability. Some parents feel they must force children to excel in all activities in a misguided effort to help them make up for their visual loss or impairment. Leisure hours may be sacrificed for intensive study and instruction, taxing the physical as well as mental capacities of the children. Children, especially those with limited intellectual ability, may feel defeated and rejected in a situation of this type. On the other hand,



Oregon State School for the Blind, Salem, Oreg.

The blind child's feeling of personal worth is heightened by realistic expectations.

many well-meaning adults accept or excuse below-average performance when adherence to realistic expectations would be much more beneficial.

If a child's only handicap is blindness or limited vision, there are many skills which he should learn at about the same age as fully sighted children. He should, for instance, start to walk, talk, and develop independent eating habits between the ages of 1 and 2, on the average. With appropriate guidance and understanding his toilet training will proceed at about the same rate as it would for any child with comparable ability. At 4 and 5 he usually will demonstrate a growing interest in other people, objects, and places, and try to satisfy this curiosity by asking innumerable questions and by sensory exploration and firsthand experiences.

Reasonable levels of expectation should be applied also to the matter of discipline. Pauline C. Cohen describes the feeling of many parents of handicapped children regarding discipline:

Like all parents, the parents of the handicapped child are very anxious about discipline. Their anxiety may be intensified by their concern about putting restrictions on a person who seems defenseless because of the limitations imposed by his handicap. Or the parents may feel that the child is entitled to special privileges because he is handicapped. Usually the parents rationalize that disciplining the child should be delayed because the child is too young to understand, or because he has so much more to learn than others. These rationalizations are natural, but they do not help the handicapped child who needs to learn as early as possible what is expected of him. The caseworker should emphasize to the parent that the handicap is secondary and the child is primary. Like all human beings, the handicapped child responds well if he knows what is expected of him and if what is expected of him is related to his capacities.¹

¹ Pauline C. Cohen, "The Impact of the Handicapped Child on the Family," *Social Case Work*, March 1962.



Oregon State School for the Blind, Salem, Oreg.

With proper guidance the child whose only handicap is blindness learns many skills at the same age as children with average sight.

Enriching and Supplementing School Experiences

Parents can be especially effective in supplementing the school's efforts to provide the visually handicapped child with well-rounded educational experiences. Many of the detailed explanations and first-hand experiences needed to help develop meaningful concepts about the world around them can be provided best in the home during leisure-time activities. Reading aloud is not only a pleasant experience for both parent and child, but may do much to motivate the development of independent reading skills. Through questions and discussions of material read aloud, children may reveal their limited understanding of words and concepts used. Alert parents in cooperation with school personnel can utilize home, family, and community resources to extend understanding and reinforce learning. Routine trips to various stores and rides in buses, trains, and airplanes are rich in educational potential for the visually handicapped child. This is particularly true if he is traveling with an understanding adult who is willing to allow him time and freedom to explore the many curiosities aroused by such trips. Visits can be arranged to farms, dairies, and bakeries and to such public facilities as police and fire departments, libraries, museums, and zoos. Recreational opportunities which can be important to both the handicapped child and his parents are readily available in many communities. These frequently include opportunities for lessons in swimming, roller skating, music, dancing, and membership in youth organizations.*

Parents also can be helpful by presenting positive attitudes toward school. A child's progress may be affected greatly by the degree of interest his parents express in his school activities. It is particularly important for parents of children attending residential schools to take advantage of every opportunity to convey their interest both in the child and in his schooling through letters and visits and in conversations with him during holidays and weekends at home.

The Older Child

As the child grows into adolescence and young adulthood, concern for social and vocational success may appear. He will question the effect of his physical limitation on future employment and on his total life adjustment. He may become more concerned about winning

* Additional community resources are presented in the article, "Community Resources Available to Visually Handicapped Children in our Community," by Hester Turner, *Concerning the Education of Blind Children*, Educational Series No. 12, New York: American Foundation for the Blind, 1959.

or maintaining respect from sighted peers. Needs for maximum efficiency in study habits, independent reading and travel skills, and more and better educational equipment and materials will become apparent as the adolescent child emerges into an ever-widening environment with increasing demands. The visually handicapped child like most sighted children will show especially uneven growth and social and emotional development at this time. As he fluctuates between desires for freedom and for support from adults, his needs will mount for understanding and factual responses in depth to his questions. Parents as well as teachers should be alert to these feelings and needs. They should seek assistance from parent counselors, special teachers and administrators of programs for visually handicapped children, eye specialists, and guidance and vocational counselors so that the child may have factual information and assistance from the best sources available. Counselors employed in the high schools and in State vocational rehabilitation agencies or commissions for the visually handicapped can be important sources of information and support.*

Suggested Readings

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* Many of the special agencies serving visually handicapped persons are listed in the *Directory of Agencies Serving Blind Persons in the United States*, published by the American Foundation for the Blind. Names and addresses of agencies and organizations which routinely publish materials in this field are listed in appendix A.

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- *Opportunities for Blind Persons and the Visually Impaired Through Vocational Rehabilitation*, VR-ISC-II, Washington, D.C.: U.S. Government Printing Office, Revised 1958.

CHAPTER III

The Child at School

VISUALLY HANDICAPPED children must be identified by the schools before special instruction can be made available to them. The school vision screening program to identify those who may be in need of eye care is often the first step in locating children who are visually handicapped. As a second step, however, routine procedures are needed to assure referral to education specialists of children whose education is threatened by visual defects which cannot be remedied by treatment or refraction. These procedures are reviewed in this chapter, along with some of the basic instructional needs of visually handicapped children which are met when appropriate educational provisions are made.

Vision Screening

Many visual impairments are prevented or their severity reduced when effective programs are provided for locating and referring children in need of care to eye specialists. Even more could be accomplished if every child were to have at least one professional eye examination before entering school. Vision screening is an essential part of the general school health program in a large and growing number of the Nation's schools. Experience with school children shows that as many as one in every four may have some type of eye problem requiring attention from an eye specialist. Yet the great majority of children have not had professional eye examinations when they enter school. Some have not been given preliminary tests to help determine if they might benefit from such examinations. The fact that many young men inducted into the armed forces require eye care indicates the need for better vision screening programs in the schools.

The National Society for the Prevention of Blindness has been associated with many school vision screening projects.¹ They suggest

¹ Recommendations based on this experience are summarized in their Publication 257, *Vision Screening in Schools*, obtainable at small cost from the Society.

that local eye health committees be formed to assist school authorities in planning all phases of the eye health program. Such committees frequently include representatives of eye specialists, school health personnel, and school administrators. They are helpful in making annual reviews of the effectiveness of screening programs and in arranging provisions for treatment of children whose parents cannot afford proper eye care.

Identifying the Visually Handicapped Child

Increased emphasis is being given to the development of systematic statewide programs for early identification and referral of infants and preschool children who may be visually handicapped. State departments of education and other public and private agencies and organizations serving youth are coordinating their programs through the establishment of joint committees and procedures for the routine referral to education specialists of children with visual limitations. These procedures facilitate bringing together parents who desire assistance with specialized personnel before undesirable behavioral patterns are adopted by the handicapped children. Sharing of information by agencies serving children also aids in the compilation of accurate statistics on the number and location of handicapped children, which is especially important in long-range planning of school programs.

Once children are enrolled in school the responsibility of identifying those requiring special instruction because of their defective vision must be assumed, to a rather large extent, by school officials. Because of the obvious nature of his disability the blind school age child is usually brought to the attention of school authorities. Identification by the school of children often classified as partially seeing is sometimes more difficult. These are children whose limited vision constitutes an educational handicap but who have sufficient residual vision to permit reading by means of print. Their visual impairment is not always as obvious as that of the blind child, and schools which have developed systematic procedures for their identification and referral have found such procedures very helpful.

School programs for visually handicapped children were founded in part upon the belief that children with limited vision would damage their eyes if they used them to full extent in school. Children were placed in separate rooms and not permitted to use their eyes any more than was absolutely necessary. Placement in special school programs for blind and partially seeing children at that time was determined



Stanislaus Co. Public Schools, Modesto, Calif.

Maximum utilization of limited vision is aided by individualized instruction.

primarily by the nature and extent of visual limitations. Frequently only minor attention was given to the educational implications these visual impairments had for each child involved.

Special education of visually handicapped children entered a new era when it became apparent that use of vision rarely results in damage. Sight *utilization* rather than conservation came to be stressed. It was realized that under proper conditions children learn to make good use of even slight amounts of residual vision. It became evident that some children formerly placed in separate classes to "save their eyes" not only *could* but *should* be returned to regular classrooms for all or part of their education. Individual children also were found to react quite differently to similar visual limitations. The decision to place a child in a special program has come to be based essentially on the extent to which the child's visual impairment *handicaps him in school* rather than on the extent of his visual loss. Information about the amount of visual acuity as an indication of loss is still useful to educators, but it is used as a gross, general guideline for preliminary referral and *not* for placement.

Educators of visually handicapped children are giving more attention to the selection of children. Increased efforts are being made to determine whether the learning problems exhibited by some children with impaired vision may be related to other causes such as low ability or other physical disabilities. When this is found to be the case, placement in school programs which are staffed with personnel specially prepared to instruct children with these other types of disabilities may be more appropriate than placement in programs for the visually handicapped. The services of several specialists are required for children with more than one type of handicap. But care is taken to provide teachers specially prepared to instruct visually handicapped children only to those children whose visual and school problems can be related. Otherwise the importance of limited vision in the learning process may be stressed beyond its true significance. Regular teachers and the children themselves may become overly concerned about a visual impairment which actually is not interfering with the child's schooling. In such cases a child may be able to profit more from the general school program from which he has been removed than from the unnecessary specialized instruction being provided.

The Role of the Classroom Teacher

Under current practices many persons assist in the location and referral of children who may be visually handicapped to education specialists: school and public health nurses, eye specialists, parents, and others. The role of the classroom teacher in the identification of these children has been heightened in recent years by the emphasis on the association of learning problems with partial vision as one of the most important determining factors in the selection of those in need of special instruction. Partially seeing children often are first identified at the primary level, where they come under close daily observation of classroom teachers. These teachers, of course, are the first to know of the child who is encountering difficulty with his school work. When they are alerted to the type of assistance available, they become a ready source of referral of children who are potential candidates for inclusion in programs designed to meet the particular needs of the visually handicapped.

Some partially seeing children may go unrecognized, however, unless classroom teachers are assisted in their efforts to identify and refer those most likely to be in need of specialized instruction. Periodic consultations between specialists and classroom teachers and routine distributions of information describing characteristics which may be observed in the school setting have proved helpful. This information may include checklists for use in referral of children, such as the

following example.

The child who may be in need of special instruction because of limited vision, which cannot be brought up to normal or near normal with glasses or treatment by an eye specialist, frequently exhibits several of the following characteristics in school. Please check those which apply in the case of the child being referred.

- Progresses at a rate below that which might be considered appropriate for children of approximately the same age, grade, and intelligence test scores.
- Falls to complete long reading assignments or other school tasks involving extensive eye use, especially when time is limited.
- Understands the basic principles involved in certain areas of study such as long division, but makes errors in the comparatively easier procedures such as addition, particularly when working with long columns of figures.
- Remembers and understands material read to him better than that which he reads himself.
- Confuses letters and words which look somewhat alike.
- Covers or shields one eye habitually while reading.
- Holds reading material at an unusual distance or angle.
- Skips letters, words, or lines while reading.
- Has difficulty copying from textbooks, workbooks, or chalkboards.
- Tires quickly or is easily distracted while working at his desk.
- Is confused by details such as those appearing on maps, charts, or diagrams.
- Writes unusually small, large, or very poorly.
- Appears clumsy or awkward on the playground.
- Has poor eye-hand coordination.
- Rubs or brushes eyes frequently.
- Thrusts head forward or squints when looking at near or far objects.
- Stumbles or trips often.

A careful study is made of each visually limited child who is referred as a possible candidate for special education. Local and regional review teams have been formed in many areas to assist in this process. Group recommendations are made by persons best qualified to assist school administrators in making decisions regarding placement of each child in the type of program best suited to his needs. These teams assist also with the reappraisal and reassignment of those already participating in special programs. Members of these teams generally include:

- The child's regular classroom teacher
- The director, consultant, or supervisor of special education
- The special teacher of visually handicapped children
- The school principal
- A school or public health nurse

A social worker or special parent counselor

A school psychologist or qualified psychological examiner

Additional members of these review teams may include supervisors or consultants for visually handicapped children employed by State education departments, representatives from residential schools for the visually handicapped, State health agency personnel, and eye specialists. Vocational rehabilitation representatives also may participate, especially when the needs of children in secondary schools are considered.

Members of the review teams and those responsible for making placement decisions must have access to current factual information about each child being considered. This information also must be available to teachers and others working with visually handicapped children. Periodic reappraisals of each child also are an important part of most established programs because of their value in helping to determine whether the educational placement which has been made continues to serve the best interests of children receiving special instruction. Thus, it is necessary for the schools to make provisions for the systematic collection of certain basic facts at the time of placement and to maintain accurate record folders for each child.

What the School Should Know About Each Child

At the time of placement, study is generally directed first to the nature and extent of each child's eye condition, his academic progress, developmental history, and scholastic aptitude. Those who are found to be experiencing difficulty in school and who are progressing at a rate below what might reasonably be expected of children with comparable ability undergo further study. The possibility that other physical disabilities may be contributing to the school problem is explored. At this point referral also may be made to teachers or supervisors experienced in the education of visually handicapped children. They carefully appraise each child's visual performance and school problems to see if a causal relationship appears to exist. A more detailed account of these procedures and of the type of information collected by schools which make special provisions for visually handicapped children follows.

Eye Condition

A written report usually is obtained from the eye specialist of each child as part of the first step in making the educational appraisal.

Some State and local school systems require *annual* eye examinations of children in special programs to assure the availability of current information. This practice also helps prevent unnecessary loss of vision among partially seeing children and possible damage to the general health of blind children. Printed report forms² often are used which indicate to the eye specialist the exact type of information about the child which will be most helpful to the school. These forms generally contain requests for the following:

1. Diagnosis of the child's eye condition, including the approximate date of onset or first diagnosis.
2. Prognosis, indicating if the condition is permanent and stationary or probable extent to which it is likely to improve or worsen. If prognosis for retaining useful vision is poor, the school may stress development of visual concepts for future reference by the child.
3. Visual acuity with and without glasses both at the reading distance and at the usual 20 feet. Charts of visual fields are requested when there are restrictions or defects.
4. An indication of whether the child is receiving the type of treatment needed. Placement may be delayed or made on a trial basis until the amount of correction or restoration of vision is ascertained.
5. The date when the child was examined or last treated and the date when he should return. This information may be used by the schools to remind parents when the time has come for additional care or re-examination.
6. When low-vision optical aids are provided, detailed information about them is requested. Some supervisors require that special teachers be present when a child is fitted or that teachers confer regularly with each child's eye specialist so that full and proper use can be made of these aids in school.

School and Developmental History

Study is made of the school and developmental history of each child. When possible the child's academic progress, social adjustment, and physical and emotional growth and development are discussed with his parents, teachers, doctors, psychologists, and others who have worked with him.

Standardized achievement tests are administered if recent scores of such tests are not already a part of the child's record folder. It is often helpful to compare results obtained from several regular and large print group tests, those which have been administered orally, individually, and those given with time limits extended. While there may be reason to doubt the validity of comparing the performance of a visually handicapped child on an oral or braille achievement

² See appendix B for sample eye examination report form.

test with that of normally seeing students on the same test, such test results still provide the most accurate basis for comparison of acquired content material.³ It should be borne in mind, however, that all other factors being equal, the visually handicapped pupil, taking the test orally or with extended time limits, should be expected to score slightly higher than his seeing counterpart through grade 6. Above grade 6, the differences in mode of administration appear to be of negligible significance.⁴

Scholastic Aptitude

As accurate an estimate of each child's capabilities as possible is needed for comparison with his school achievement. There is a tendency for school personnel and parents to accept or excuse below average achievement by partially seeing children who have the ability to do better work. However, many of those referred for special instruction because of poor academic progress have less than average ability and may actually be achieving as well as reasonably can be expected.

Individual intelligence tests administered by qualified examiners who are experienced in working with children who have visual limitations are considered especially important. Such examiners can make clinical judgments as to the probable effect of each child's visual limitation on the test score when individual rather than group tests are utilized. Caution should be used in interpreting test findings. Results should be compared with developmental history, social competence, clinical judgment, and teacher appraisals, since tests in current use have been designed and standardized for the most part for children with average sight.⁵

Clinical instruments frequently used in testing programs for visually handicapped children include:

³ Achievement tests in large print are available from Stanwix House Publishers and from the American Printing House for the Blind. The latter also has tests in braille.

⁴ Additional suggestions regarding testing these children are contained in articles by Dr. Carson Y. Nolan, "Evaluating the Scholastic Achievement of Visually Handicapped Children," *Exceptional Children*, Vol. 28, No. 9, 1962; Carl J. Davis and Carson Y. Nolan, "A Comparison of the Oral and Written Methods of Administering Achievement Tests," *The International Journal for the Education of the Blind*, Vol. X, No. 3, March 1961; and Max W. Mueller, "Effects of Illustration Size on Test Performance of Visually Limited children," *Exceptional Children*, Vol. 29, No. 3, November 1962.

⁵ This area is reviewed by Carl J. Davis in his article, "The Assessment of Intelligence of Visually Handicapped Children," *The International Journal for the Education of the Blind*, Vol. XII, No. 2, December 1962.

Through grade 3:

The Maxfield Bucholz Adaptation of the Vineland Social Maturity Scale.
The Interim Hayes-Binet Test of Intelligence for the Blind.

Grades 4 through 8:

The Interim Hayes-Binet Test of Intelligence for the Blind.
The Wechsler Intelligence Scale for Children, Verbal Scale.

Grades 8 and above:

The Wechsler-Bellevue Intelligence Scales, Forms I and II.
The Wechsler Adult Intelligence Scale.

Grades 11 and 12 (for college candidates):

Scholastic Aptitude Tests, College Entrance Examination Board (braille and large type editions).

A number of new testing procedures are being standardized upon blind subjects using nonverbal materials. These tests may be available for general use during 1965 or 1966.

A variety of other clinical instruments may be used by skilled examiners. Paper and pencil questionnaires and inventories using forced-choice response techniques may be administered orally with either the examiner recording the responses or the subject making his choices through card sorting techniques. There is some supporting evidence available which indicates that adaptations of a variety of projective techniques may be used with this group.⁶

Aptitude testing for particular occupational groupings has had limited development in work for the blind. However, some general normative data have been compiled for a small group of motor skill tests: Crawford Small Parts Dexterity Test, Minnesota Rate of Manipulation Test, and Pennsylvania Bimanual Work Sample.⁷

None of the testing procedures listed above have undergone thorough standardization procedures with visually handicapped children. Nevertheless, the various verbal tests of learning ability have been sufficiently used for experienced examiners to be able to place reasonable confidence in the results obtained. The Maxfield Bucholz Scale has been developed upon blind children. As with the intelligence tests, all other procedures have been used extensively enough for the skilled examiner to be able to formulate a reliable clinical judgment. All of the materials listed may be obtained from the original publisher with the exception of the Interim Hayes-Binet Test of Intelligence for the Blind which may be obtained from the Department of Psychology and Guidance, Perkins School for the Blind, Watertown, Mass.

⁶ This particular area is summarized by Lebo and Bruce in "Projective Methods Recommended for Use with the Blind," *Journal of Psychology*, vol. 50, July 1960.

⁷ This information is contained in the pamphlet by Mary K. Bauman, *A Manual of Norms for Tests Used in Counseling Blind Persons*, No. 6, Research Series, New York: American Foundation for the Blind, 1962.

At this point in the appraisal procedure of children who have been referred for possible placement in the special school program, a review is often made of all available evidence. Those children who appear to be adjusting well and progressing up to or near their level of ability, are usually placed or remain in regular classrooms on a trial basis without special services. Relatively minor adaptations may be made, such as seating them advantageously and permitting them to move about within the room to make full use of their limited vision. Teachers or supervisors of the visually handicapped *periodically review* the progress of these children with their regular teachers to be sure new problems do not arise. A more thorough analysis, however, is made of the nature of problems confronted by those children who seem to be achieving below their level of ability and of those who show signs of starting to fall behind. Particular attention is given to the child's general health and to examining the possible relationship of his eye condition to his school problems.

General Health

A general health problem other than the visual limitation may interfere with school progress. The tendency to attribute all of a child's school difficulties to a rather obvious visual defect may obscure the fact that other disabilities are contributing. Unfortunately, some causes of visual disturbance may bring about additional physical disabilities in the same child, such as a loss or impairment of hearing or damage to the heart or to the central nervous system. Emotional disturbance may be a factor. Any one of many general health problems other than a visual limitation may adversely affect schooling, particularly if its presence and educational implications are not known to the school. It is, of course, especially important that additional handicaps be prevented whenever possible. A hearing loss which develops in a child who has already lost all or part of his vision, for instance, is even more serious than for a child with average vision. It is for these reasons that admittance to some special programs is contingent upon a medical evaluation indicating the status of the child's general health as well as his vision.

Relationship of School Problem to Visual Disturbance

The possible relationship between each child's school problem and his eye condition is explored. Much attention is given to the nature of the school problem and to the child's efficiency of vision for reading

purposes. A teacher or supervisor qualified in the education of visually handicapped children may work with the child individually for a half-day or more. Informal vision tests may be given. An effort is usually made to determine whether the child is able to *sustain* sufficient visual discrimination and functional use of his eyes throughout the day to enable him to do his school work. Reading performance is studied. Listening comprehension is compared to the child's own silent reading comprehension, and the pattern of his reading errors is examined to see if these are related to his particular type of visual disturbance.

The child who is unable to read or who reads very poorly usually encounters academic failure early in school. Most of those who fail to develop adequate reading skills, however, do not have low visual acuity but are in need of special instruction other than what normally is provided in programs for visually handicapped children. When appropriate instructional procedures are employed, many children with low visual acuity develop quite satisfactory reading skills. Others experience great difficulty which can be directly related to their eye condition. They need and profit from instruction by teachers prepared to work with visually handicapped children and from other provisions frequently made for these children.

Trial Placement

It is often possible to select children who are handicapped in school by their visual limitation through use of the process outlined above. Other children, however, require a more complete appraisal. This may be accomplished by enrolling them in special programs on a trial basis where their performance is studied by teachers and other personnel experienced in working with visually handicapped children. When local facilities are not adequate to conduct such appraisals children may be transferred to districts with more highly developed programs or to residential schools for the visually handicapped. Educational diagnostic services rendered in these programs or special schools may require that children remain on a trial basis for varying periods of time ranging from a few weeks to several years. They are given intensive evaluation and instruction and then are referred to schools or agencies which have the most appropriate facilities to meet their particular needs.

Once the child is identified as visually handicapped by the school, attention is directed to his basic instructional needs. The nature and extent of those special instructional services which will be most appropriate to him as an individual must be determined.

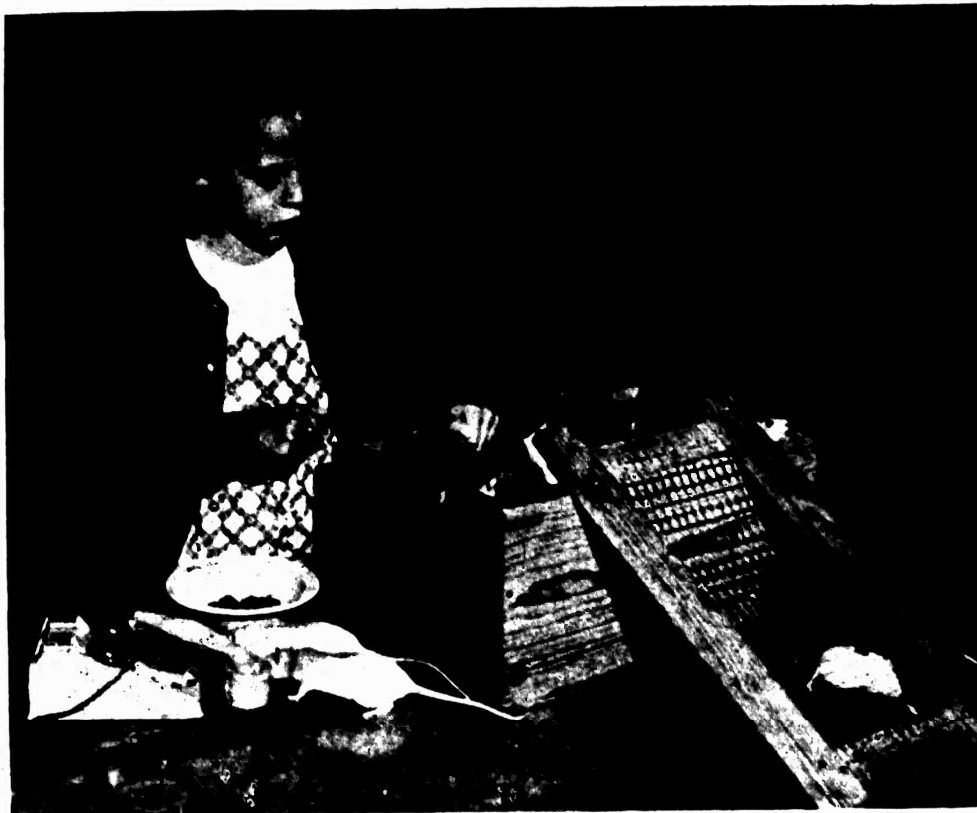
Some Basic Instructional Needs

The adequacy and success of a program for visually handicapped children will depend to some extent on the physical surroundings in which it is housed. Of greater importance will be the amount and variety of books, equipment, and other special aids put into the hands of these children. But these aids will not be put to maximum or even proper use without the guidance of qualified teachers who understand the implications of visual loss or impairment and the instructional procedures necessitated by defective vision. Ultimately the success of a special program will be measured in terms of the extent to which these teachers are able to meet some of the following basic instructional needs.

Supplemental Instruction

The lack of vision or inadequate interpretations based on blurred or distorted visual perceptions may create serious learning problems unless these are recognized early and individualized supplemental instruction is provided. The range and variety of experiences of visually handicapped children are limited. Their inability to perceive and relate all the details in a given situation may lead to faulty concepts. It cannot be assumed that they have knowledge of the facts and experiences which those with average sight acquire through incidental learning. Nor can it be assumed that they have benefited equally from demonstrations, field trips, and other learning experiences commonly provided in the general school program. A careful analysis of each child's experiential background and correctional instruction to fill gaps and revise faulty concepts is a necessary part of the service rendered by the special teachers. These teachers also pay particular attention to reinforcing descriptions made verbally to the child with concrete experiences which have meaning to those who are visually handicapped. Study units are used extensively with these children to assure knowledge of details and development of proper relationships. Models and real objects suitable for tactual exploration and repeated opportunities for actual experiences are regular parts of the special instructional program.

Children with insufficient vision to rely upon as a major channel of learning must be taught reading and writing by means other than print. Listening skills must be developed to their maximum. If the blind child is to read what he has written, he must become proficient in reading and writing by means of braille. Special techniques are



California State Dept. of Education, Bureau of Audio-Visual Education, Sacramento.

Firsthand experiences are especially important to the visually handicapped child.

employed by teachers of visually handicapped children to assure mastery of the auditory and tactual approaches to reading. The partially seeing child frequently is given individualized instruction in reading with emphasis on utilizing context cues, recognition of words from their general shape and form, and working from large to small print. Since some children with very limited vision may need to use several modes of reading or transfer from one to the other, care is taken to develop positive attitudes toward reading by tactual, visual, and auditory means.

When left to their own resources in regular classrooms, these children tend to fall behind and may fail to develop adequate basic learning skills. Since the special teacher usually has responsibility for fewer children than the general classroom teacher, clinical procedures may be used routinely to appraise each child's learning progress at frequent intervals and to adjust instructional approaches to fit individual needs. The employment of a variety of remedial techniques in the teaching of basic learning skills is a practice commonly used with

young visually handicapped children and with those recently included in special programs.

Orientation, Mobility, and Independent Travel

Children with little or no vision are taught orientation and mobility skills. This instruction may be started at an early age by qualified parent counselors and teachers who help the child solve some of the unique problems he encounters in perceiving and orienting himself to his environment. Most blind children require training and frequent practice in the use of auditory and tactual perceptions, as well as the integration of these and stimuli received through other senses with kinesthetic experiences to understand and relate effectively to their environment. Those with partial vision may also profit from such training, since it results in greater poise and more socially acceptable behavior for some when these techniques are used to supplement perceptions gained from their limited residual vision. As the child matures and the need to travel independently in unfamiliar surroundings increases, highly skilled travel specialists are provided to extend the work in this area which has been performed by special teachers.

Sight Utilization

Children with residual vision should be taught to make maximum use of it. They can be helped to understand clearly that such use rather than being harmful may actually increase their visual efficiency and ability to interpret what they see. Most will require preferential seating and encouragement to move close to chalkboards, demonstrations, and other learning activities. Good posture is stressed and each child is encouraged to discover lighting conditions, reading and writing positions, and distances which individually are best suited for him. He is given freedom to use these in school and at home even though they may not conform to those recommended for most children. The special teacher works closely with the eye specialist in helping children who are fitted with low vision aids learn to utilize these to their fullest potential in the school setting. Children whose vision is limited to only light perception and those with only light projection or gross form and object perception also profit from sight utilization procedures. A child with light perception can be taught to make good use of it for purposes of orientation and independent travel. Those with gross form and object perception often are able to distinguish movement and colors. A careful analysis of colors, lighting, and contrasts best suited to each individual may dramatically broaden the range of visual perceptions which can be used in the education of children with borderline vision.

Study Habits and Use of Special Aids

A visual loss or impairment tends to reduce the rate at which children read and study. They are taught to develop efficient study habits and to organize their educational materials and aids for quick and easy location and use. The operation and effective use of special aids and equipment such as writing devices, tape and record players, student and adult readers, and optical aids are all dependent upon skilled guidance and instruction. The child with partial vision must learn to pay particular attention to neatness, to guard against putting too many details on one page, and to avoid crowding his written work. Mental shortcuts are encouraged as substitutes for written drill, particularly in arithmetic. Since typewriting forms a rapid and important means of written communication for many visually handicapped children, instruction in this skill may be started by the special teacher as early as grade 4 or as soon as each child appears ready.

Social and Personal Management Skills

Some visually handicapped children relate quite naturally to their fully sighted peers. Most, however, require considerable assistance in learning to adjust to a world in which normally seeing persons predominate. Even constant contact with normally seeing children such as that provided in some local school programs is no guarantee that satisfactory relationships will result. Many of these children require training and encouragement with such fundamental personal management and social skills as grooming, posture, eating, use of guides, and in the art of requesting and refusing assistance gracefully from sighted persons. Proficiency in the use of playground equipment or in some athletic activity may be a first step toward acceptance for some. Visually handicapped adolescents profit from small group discussions of ways in which they effectively cope with awkward social situations or of ways in which they might have put their sighted companions more at ease had they reacted or behaved differently.

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CHAPTER IV

Developing the School Program

IT HAS BEEN RECOGNIZED for some time that the special needs of visually handicapped children vary greatly from one child to another. Greater recognition has been given in recent years to the fact that these needs also vary considerably for each child from *one time to another*.

One of the important immediate goals of special education for visually handicapped children is the adequate preparation of as many as possible for full participation in the general school program. Some, from the start of their schooling, function well in the general program with very limited assistance from specially prepared teachers or consultants. Others, however, require intensive individualized instruction of the type most effectively provided in special schools or classes, or must be transferred to programs of this type because the schools in their home communities do not make appropriate provisions for their education. Some who are started in such programs may progress well later in regular classrooms for part and eventually all or most of each school day when the services of qualified personnel are made available.

The Role of State Departments of Education

State departments of education are assuming an increasingly important and active role in the education of visually handicapped children. Each State has at least one person in its department of education with assigned responsibility in the field of special education. The number employing specialists in the education of visually handicapped children has grown considerably. The rising number of local programs for these children has helped point up the need for

teacher certification, program standards, provisions for scholarships, and assistance with recruitment from State personnel.¹

Specialists employed in State departments of education have been helpful with inservice training and orientation of regular teachers working with visually handicapped children. Their guidance has been essential in constructing long-range statewide plans to assure orderly development of programs in areas of greatest need and in providing leadership in the organization of cooperative programs involving several school districts or counties. Distribution of State financial aid and establishment of statewide or regional centers for procurement and distribution of educational aids, books, and equipment have been other valuable services rendered by specialists in these departments. They have been instrumental in helping to develop facilities for visually handicapped children with additional handicaps or, when necessary, arranging for their education in facilities outside the State. State education personnel have served effectively in coordinating and helping to develop functional referral procedures among the many public and private agencies working on behalf of these children. In several States such as Connecticut, New Jersey, and Virginia, some of these services have been made a part of the programs operated by State commissions for the visually handicapped.

Field Service

Some State education departments and State commissions for the visually handicapped, in addition to meeting their leadership and regulatory responsibilities in this area, employ specialists in education who spend much of their time in the field rendering direct services to teachers and to handicapped children. In localities which do not employ specially prepared teachers, State specialists may assist in organizing special programs, evaluating the needs of individual children, providing special books and equipment, and making arrangements for readers and training of children in the use of these services. Experts and specialists with certain skills whose employment in separate programs would be difficult to justify because of the relatively

¹ Many of the State departments of education which employ full- or part-time specialists in this field have developed guides to assist school systems in their States to establish or maintain special programs for visually handicapped children. Some of these guides are quite extensive and may be secured, upon request, free or at small cost. The list *Special Education Personnel in State Education Departments with Assigned Responsibility in Education of Visually Handicapped Children* is prepared annually by the Education for Exceptional Children Branch of the U.S. Office of Education and is available upon request without cost. Also available from the Branch is the mimeographed list *Bibliography of State Education Publications in Special Education*.

small number of children who would benefit from their services also may be employed by State education departments. Counseling services for parents of handicapped children are sometimes made available throughout a State or large area on this basis. Formal training of blind students in independent travel and orientation is another necessary provision small programs find difficult to provide and which may be performed efficiently on a statewide or regional basis.

State Advisory Councils

Some States have formed advisory or coordinating councils to aid them in meeting their responsibilities in this area of education. Memberships in these councils vary from State to State but often include representatives of: State education departments, residential schools for the visually handicapped, county and local school systems enrolling these children, organizations of eye specialists, State health departments, vocational rehabilitation agencies, school psychologists, social workers, visiting teachers, or parent counselors.

These councils are helpful in suggesting general policies and guidelines regarding referral procedures among agencies, in formulating long-range plans and projections of future program development, and in organizing provisions for systematic distribution of special materials and equipment used in the education of visually handicapped children.

Organizational Plans

A variety of organizational patterns or plans is often necessary for developing a complete educational program for visually handicapped children. Another essential provision is the establishment of placement and referral procedures to assure that each child will be placed or transferred to the particular plan best suited to his needs at any given time. Organizational plans most frequently provided for these children are residential schools, special classes, cooperative classes, resource rooms, and itinerant teachers.

Residential Schools

All States make residential school facilities available to their visually handicapped children either by maintaining schools of their own or by making arrangements with schools in neighboring States. The first school of this type was established in France near the end of the

18th century. Between 1829 and 1833 three private residential schools or institutions for visually handicapped children were established in the United States. A short time later funds were appropriated in Ohio to establish a State tax-supported school which opened in 1837. Most States followed Ohio's example and established schools supported by public funds to provide for the free education of their visually handicapped children. By 1900 the number of special schools had grown to 38, and in 1962 it exceeded 50. Enrollments in these schools had risen to more than 7,500 children in 1962.

Until quite recently many partially seeing children and the great majority of blind children in the United States were educated in residential schools. These schools often provide for the total care as well as education of their pupils during the school year and may have facilities for academic, medical, social, recreational, and prevocational guidance and training. In a few instances they also provide for postgraduate education and occupational placement and followup. Some have broad curriculums with offerings beyond the usual academic work which emphasize manual and domestic arts, physical education, music, and training in independent travel.

Over the years these schools have undergone many changes. Standard educational programs with courses of study similar or identical to those in regular public schools have been adopted by most. The early tendency to attempt to create a substitute home for children has given way to efforts to strengthen home and parent-child relationships. In many cases children are welcomed as day students, continuing to live at home and attend school during the day. Others whose homes are located farther away are encouraged to spend weekends and holidays with their families. Parents are urged to visit school and to discuss questions or problems which arise concerning the education and development of their children. Regular home visits are made by teachers and parent-counselors from some schools.

Community resources are being utilized to meet some of the needs of pupils enrolled in residential as well as in local school programs. Pupils participate in many community activities, including church and Sunday school, YMCA and YWCA, scouting, amateur radio, athletic competition, and social events sponsored by residential schools, neighboring public schools, or recreational centers. Another practice which seems to be increasing is that of sending resident pupils, particularly those at the high school level, to regular local schools. Housing, guidance, supervised study, tutors, and readers often are provided these students by the special schools.

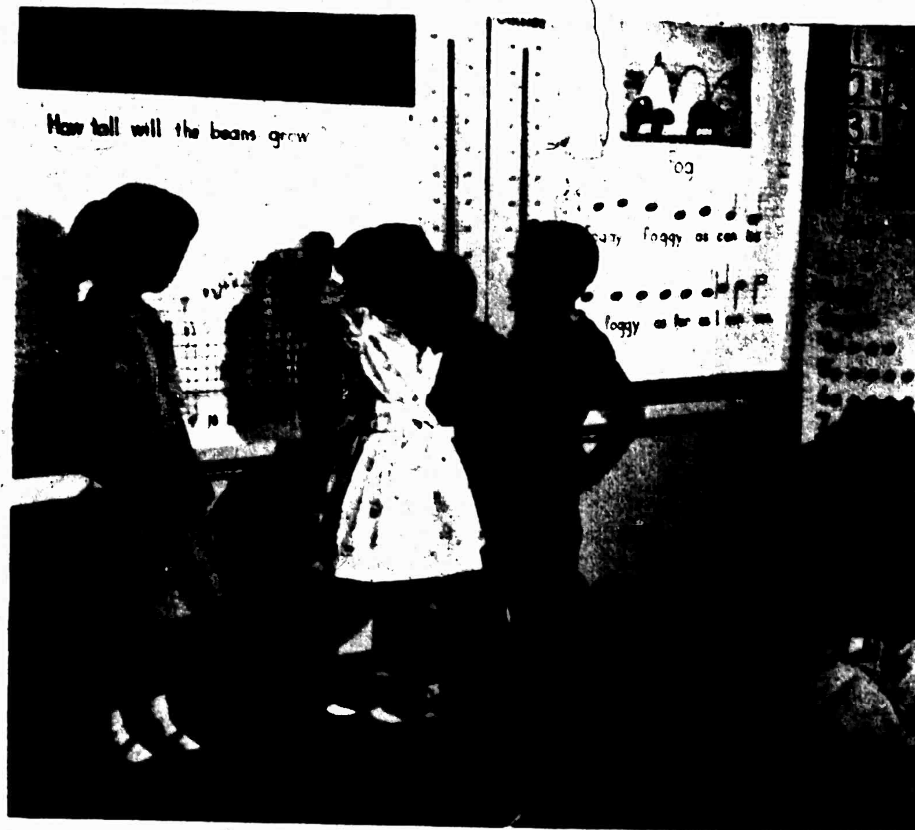
Through the years educators in these schools have demonstrated that blind persons can be educated successfully and that definite bene-



California School for the Blind, Berkeley.

Community resources enrich the school program.

fits accrue to them as individuals and to society as well when good educational programs are provided. The difficult task of developing educational programs for deaf-blind persons is another achievement credited to their work. Recently their pioneering efforts have been increased along other equally challenging horizons. Experimental programs for visually handicapped children who have additional handicaps are receiving much attention. More and more teachers and specialists are being employed to work with children who also have extreme learning problems, special health conditions, speech impairments, and those who are crippled or who have complex developmental problems, as well as those who are deaf or hard of hearing. New buildings are being planned to accommodate children with multiple handicaps, such as those confined to wheelchairs. Psychiatric services are being obtained and utilized by more schools than ever before along with full- or part-time psychologists, guidance and counseling specialists, and physical therapists. The development of demonstration projects in residential as well as in local school programs which make effective provisions for children with multiple handicaps is helping to lead to more adequate programs for these children both at the local and State levels.



Stanislaus Co. Public Schools, Modesto.

This first-grade classroom has an environment conducive to learning all children, including the child with very limited vision.

Local Public School Programs

Local school provisions for visually handicapped children were begun in Chicago in 1900 when the first local school class in this country for blind children was organized. Similar classes for partially seeing children were first initiated in Boston in 1913. Many years elapsed, however, before local school provisions for visually handicapped children became widely available. Until quite recently provisions for blind children generally were made only in some of the large cities. But between 1953 and 1958 the number of district and county school systems organized to serve blind children increased rapidly, as reflected in charts 1 and 2.

Special Class.—At first, large city school systems operated a majority of local school programs for visually handicapped children and adopted the full-time special class plan. These classes were established in centrally located schools, and blind or partially seeing children were transported to them. They were organized as separate units

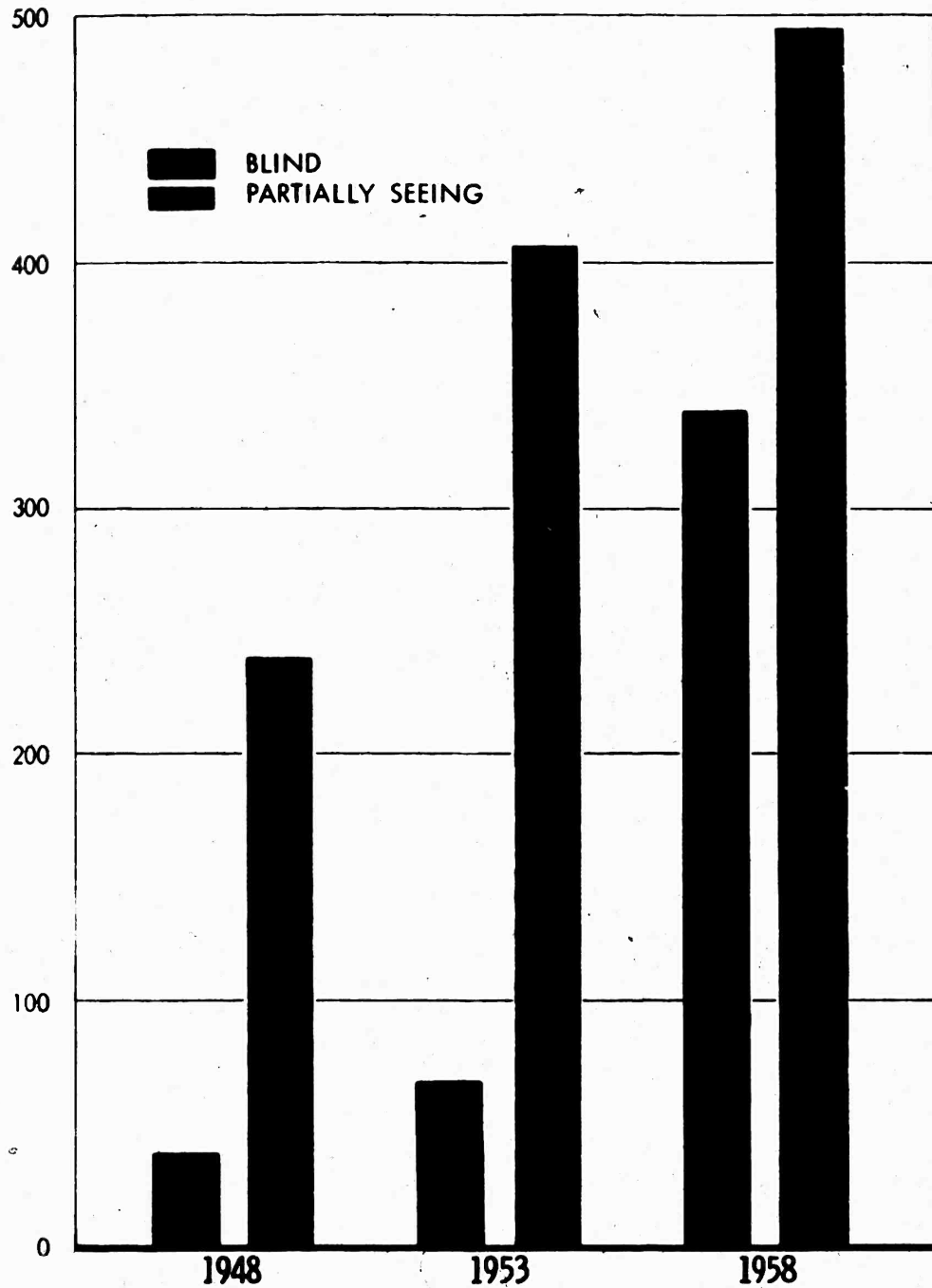


Chart 1.—Number of school systems reporting programs for visually handicapped children in the contiguous States: Selected years

Source: Biennial Survey of Education in the United States, Chapter 5, *Statistics of Special Education for Exceptional Children, 1947-48, 1952-53, and 1957-58*. Washington: U.S. Government Printing Office.

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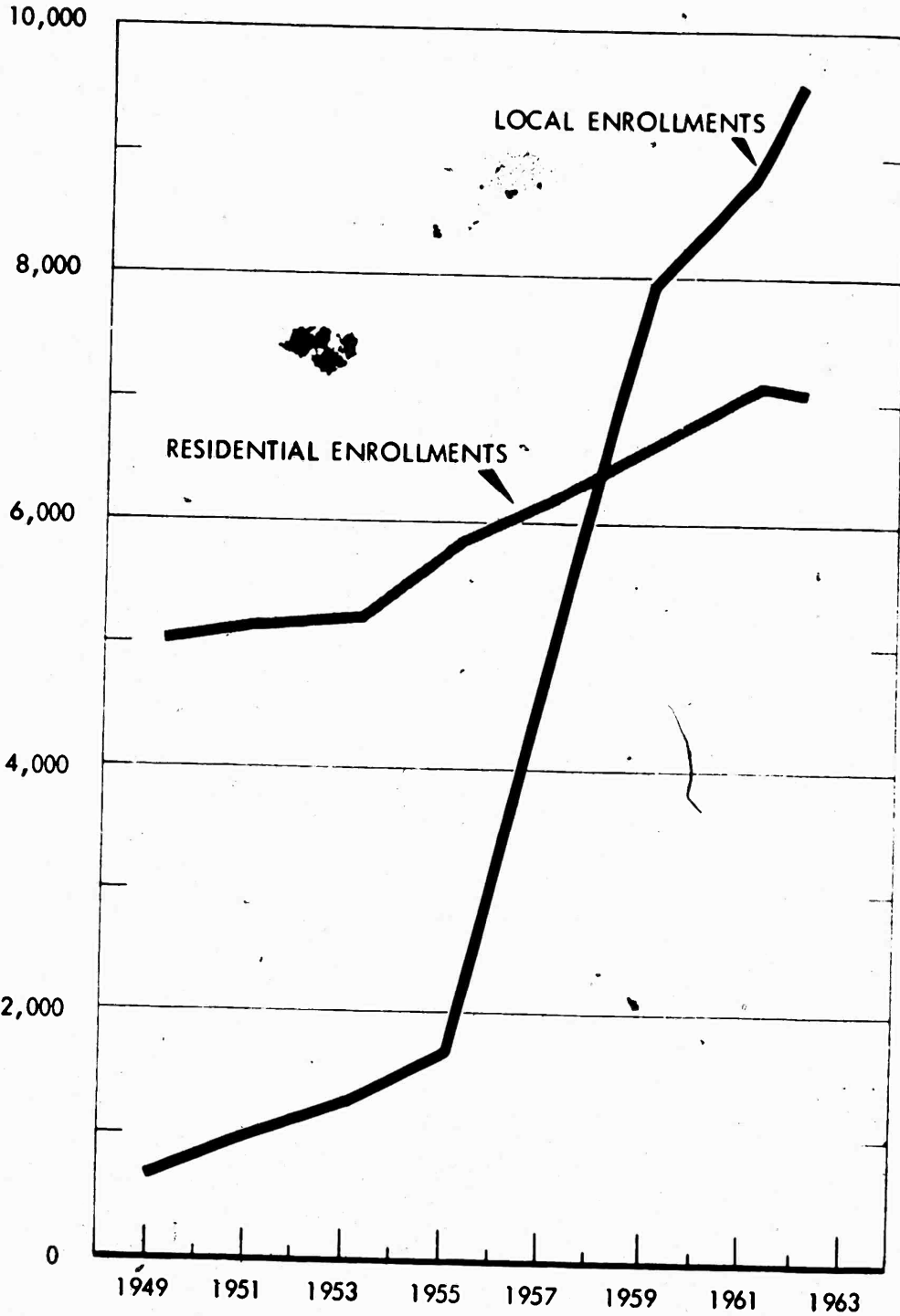


Chart 2.—Number of school children registered with the American Printing House for the Blind: Selected years

Compiled from annual reports and summary tabulations of the American Printing House for the Blind.

in which children were instructed by specially qualified teachers throughout the school day. As local school personnel gained experience working with visually handicapped children, most of these classes were modified and other administrative patterns evolved. Regular classroom teachers became responsible for educating these children to a greater extent.

Cooperative Class.—Under this organizational pattern, children are registered with the special teacher and the cooperative class serves as a homeroom and special study room for them. They attend regular classes for a sizable portion of each day.

Resource Room.—This organizational pattern has stimulated considerable interest in recent years. Children are registered with regular teachers who assume the major responsibility for their education. They utilize the provisions of the resource room and teacher as the need arises.

Under both the cooperative class and resource room plans, specially prepared teachers generally are available within the school building throughout the school day. Classrooms used by special teachers should meet the standard requirements of good regular classrooms. Adequate lighting is particularly important, and more shelf, storage, table space, and electrical outlets will be required than are usually provided in the general rooms.²

Itinerant Teacher.—Under this plan children usually are enrolled in regular schools near their homes and provided with special instruction in keeping with their needs by itinerant teachers. These teachers travel among the schools in one or more districts or counties. As under the cooperative class and resource room plans, regular classroom teachers assume much of the responsibility for educating visually handicapped children. Individual supplemental instruction and the teaching of specific skills made necessary by the child's handicapping condition are provided by specially qualified itinerant teachers.

Administrators who have come to favor the cooperative, resource, and itinerant teacher plans over earlier full-time special classes give a variety of reasons for their preference. Among those often given are:

- Emphasis is placed on the child's abilities and likeness to other children rather than on his differences.
- The wealth of resources within the regular school program is made available to these children by including them in most general school activities.
- The services of specially prepared teachers may be made available more easily to visually handicapped children who have additional major handicaps and to both blind and partially seeing children when they are not

² Suggestions for equipping the special rooms are contained in the pamphlet *Resources for Teachers of Blind with Sighted Children* by Georgie Lee Abel, published by the American Foundation for the Blind, New York, Educational Series No. 9.

kept together in the special class during the entire school day. The mentally retarded child who is also visually handicapped, for instance, can be enrolled in a special class for mentally retarded children, but still be served by resource or itinerant teachers specially prepared to instruct visually handicapped children.

- Under these plans teachers of the visually handicapped devote full time to individualized instruction of children in the specialized aspects of the curriculum which they are specifically prepared to teach.
- The visually handicapped child is educated in a setting more nearly approximating that which he will encounter in adult life.

Further modifications of these plans have been employed successfully in different parts of the country. In some instances, teachers operate resource rooms part of the day or week and serve as itinerant teachers and consultants the remainder of the time. The comparatively low prevalence of visually handicapped children and the limited amount of special services or special instruction required by some of these children have led to the employment of *teacher-consultants* in some areas. These specialists often are found in new and developing programs and where only one skilled teacher is employed within a district, county, or region. Teacher-consultants serve both as itinerant teachers and as consultants to regular teachers and administrators. They may give individual instruction to a few children, recommend and distribute special books and aids, and train children in the use of these aids. At times regular teachers not otherwise employed serve as part-time tutors under the direction of the teacher-consultants to those visually handicapped children who require more individual teaching than can be provided by the specialist.

Qualifications of the Special Teacher

Standards of professional preparation have long been prescribed by State departments of education for teachers employed in the public schools of each State. As local school programs for exceptional children have grown, so has the movement for State departments of education to develop special provisions for certification of personnel to staff these programs. It is generally recognized that distinctive competencies are required of teachers employed to instruct visually handicapped children. While standards for these teachers vary considerably from State to State, there is fairly common agreement on some of the basic requirements.

According to the most recent information available to the Office of Education, a bachelor's degree from an accredited college or university is a minimum requirement in all States making special provision for

teachers of visually handicapped children. Most States which have special provisions for teachers of exceptional children extend or endorse certificates valid to teach in some phase of the general education program rather than issue separate and distinct certificates for special education. States which do not require a regular teaching certificate nearly always specify a substantial amount of professional preparation in general education as a prerequisite or corequisite for certification in special education. Teachers who have taught in regular classrooms may be given preference by superintendents and supervisors at the time of employment, but this experience is seldom required for State certification. Special teachers often are recruited from qualified and experienced classroom teachers who obtain the added specialized preparation during a year of advanced work or during two or more summers of study.

Among the special requirements most frequently listed by States making provisions in this area are the study of special techniques and supervised teaching of visually handicapped children. Additional requirements frequently include study of structure and function of the eye and educational implications of eye pathology. A survey of education or psychology of exceptional children also is often required. There is considerable variability in other requirements. Interested persons should seek information from their State departments of education.

Various public and private agencies and organizations have contributed to the development of teacher standards in this field. The Council for Exceptional Children has been concerned with the study and development of accreditation standards in various areas of exceptionality, including the visually handicapped. The American Association of Instructors of the Blind began to propose standards for teachers belonging to that organization in 1940.³ The American Foundation for the Blind and the National Society for the Prevention of Blindness have participated for many years in teacher preparation programs in this area.⁴ The Education for Exceptional Children Branch of the Office of Education has conducted a series of studies on teacher preparation. These agencies also periodically make information available on colleges and universities which offer teacher preparation course-work in this area.

³ Leo J. Flood. "AAIB Teacher Certification Requirements—Revised." *International Journal for the Education of the Blind*, vol. X, No. 4, May 1961.

⁴ American Foundation for the Blind. *A Teacher Education Program for Those Who Serve Blind Children and Youth*, New York: The Foundation, 1961.

National Society for the Prevention of Blindness. *Recommended Basic Course for Preparation of Teachers of Partially Seeing Children*, New York: The Society, 1961.

Factors Affecting Program Planning

Many factors affect school program planning in addition to the variety and changing needs of the children. The resources, interests, and readiness to develop these and other school programs differ from one community to another and from State to State. There are some factors, however, which are particularly significant to the development of complete educational programs. They include the incidence, prevalence, and location of pupils in need of such programs; whether provisions are made for visually handicapped children together or separately for children who are blind and for those who are partially seeing; and the size and location of school districts.

Incidence and Prevalence

The comparatively low prevalence of visually handicapped children often poses a problem to those responsible for providing special educational facilities. Reliable figures on the number of these children in the school population are not available. Supervisors and consultants in charge of State and local programs report they find 1 visually handicapped child for every 1,000 to 1,500 of the school-age population. Blind children tend to be reported at the rate of about 1 for every 3,000 to 4,000. A school official in a large system may expect to find from 20 to 30 mentally retarded children and perhaps as many as 10 deaf and hard of hearing children in his schools for each visually handicapped child in need of special services. He may expect to find more than 60 mentally retarded children for each educationally blind child. Estimates projected beyond 1970 indicate the total number of visually handicapped children may be considerably higher than at present, but that the prevalence of those considered by the schools as blind may drop to about 1 in every 7,000 to 8,000 school-age children.

Several fairly recent developments affect these estimates, including a surge in the incidence of blindness among infants and the shift of emphasis in education from sight conservation to sight utilization. The incidence of blindness among children has always been relatively low, particularly since the turn of the century when preventive measures removed ophthalmia neonatorum as a major cause. In 1942 a little known eye condition, retrolental fibroplasia, was reported on the increase. This condition, for the most part, affected premature infants. By 1955 medical research had isolated the primary cause as the administration of high concentrations of oxygen to these infants. Corrective measures were widely applied and retrolental fibroplasia all but disappeared. Thousands had been added, however, to the number of visually handicapped children. Those handicapped by it began

to attain school age in significant numbers. In this same period a sharp increase in the general birthrate brought with it larger numbers of children with visual limitations and blindness caused by factors other than retrolental fibroplasia. These too began to enter the Nation's schools, and a "wave" of visually handicapped children appeared as depicted in charts 3 and 4.

The number of blind and "partially seeing children is expected to continue to rise along with the general child population. Two factors, however, may tend to reduce the prevalence of those who will be classified as blind by the schools in the years ahead. Those blinded by retrolental fibroplasia will not be replaced by others with this condition when they have moved through the schools. The change in educational practice from sight conservation to sight utilization also will tend to lower the percentage of those with visual limitations who are classified as blind. Emphasis on sight utilization, along with renewed interest in exact refraction and optical reading aids, is expected to enable increasing numbers of children with low vision to become reasonably efficient readers of print. Children with low vision who in the past would have started their reading instruction by means of braille are being taught to read print and are no longer classified for educational purposes as blind.

Dual Programs

Another important consideration for program planning is whether provisions are made for visually handicapped children together or for blind and for partially seeing children separately. While many programs and schools use only the word blind in their titles, most of them admit pupils who have useful residual vision. Some schools provide separate classes or teachers for blind and for partially seeing children, while in other schools, children with both types of visual handicaps are instructed by the same teachers. The practicality of employing teachers prepared to serve both types of children in systems where numbers tend to be too small to justify separate programs or teachers for each is being realized by many school administrators. Some State and large metropolitan programs also have adopted this practice. Teacher and pupil transportation problems in congested areas have contributed to this trend. Another contributing factor is the belief that the many children with very low vision benefit from having teachers with dual preparation and responsibility. The necessity of making an early placement of children with borderline vision in either a special unit for blind or partially seeing, or for transferring such a child from one unit to the other is removed when dual provisions are made.

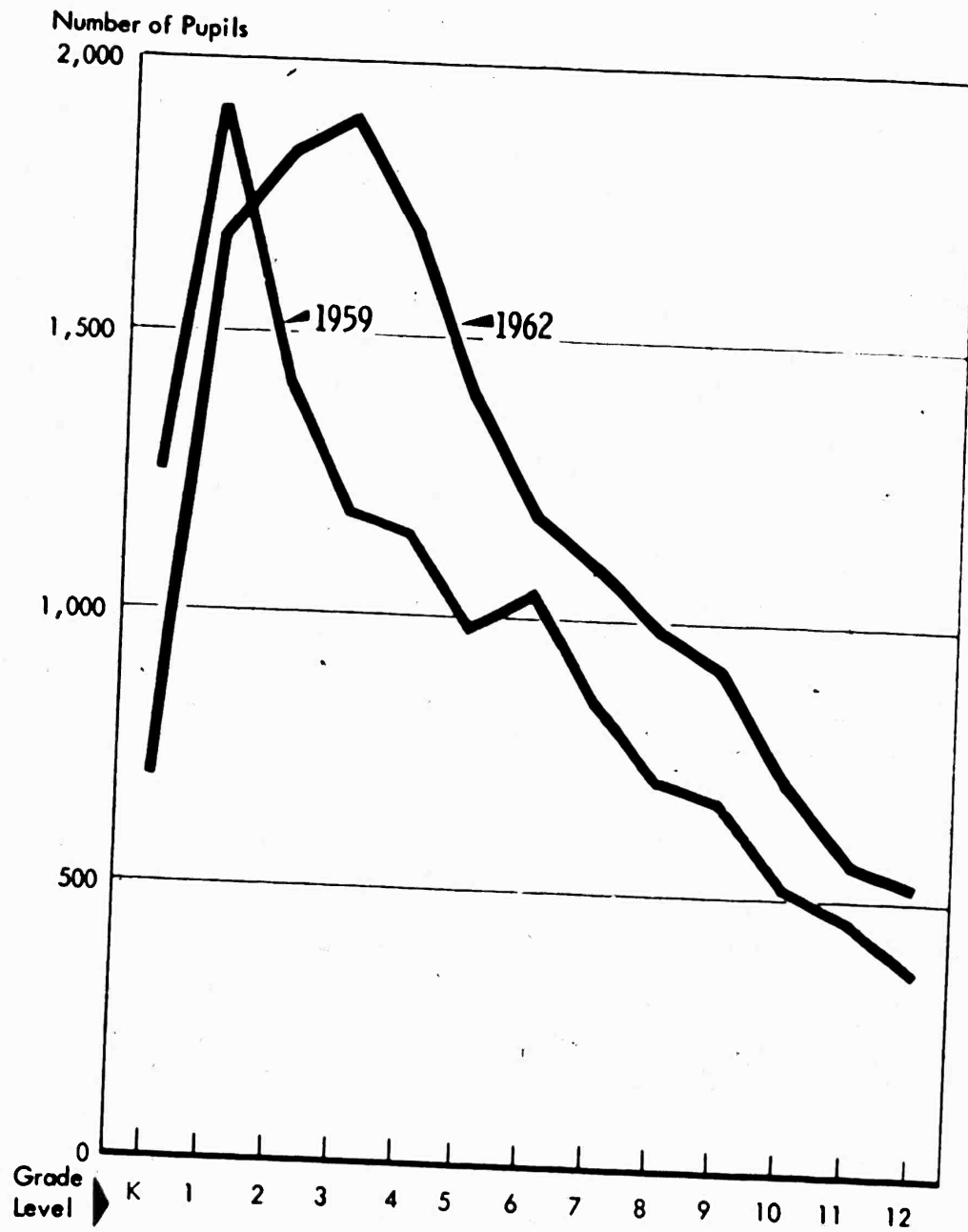


Chart 3.—Pupils registered with the American Printing House for the Blind, by grade level: 1959 and 1962

NOTE.—In 1959 there were 13,280 pupils registered (12,500 in grades 1 through 12 and 780 ungraded and multihandicapped); in 1962 the total was 16,575 (15,250 in grades 1 through 12 and 1,325 ungraded and multihandicapped). Numbers are approximates. Special students, adults, and those for whom mode of reading was unspecified are excluded.

Number of Pupils

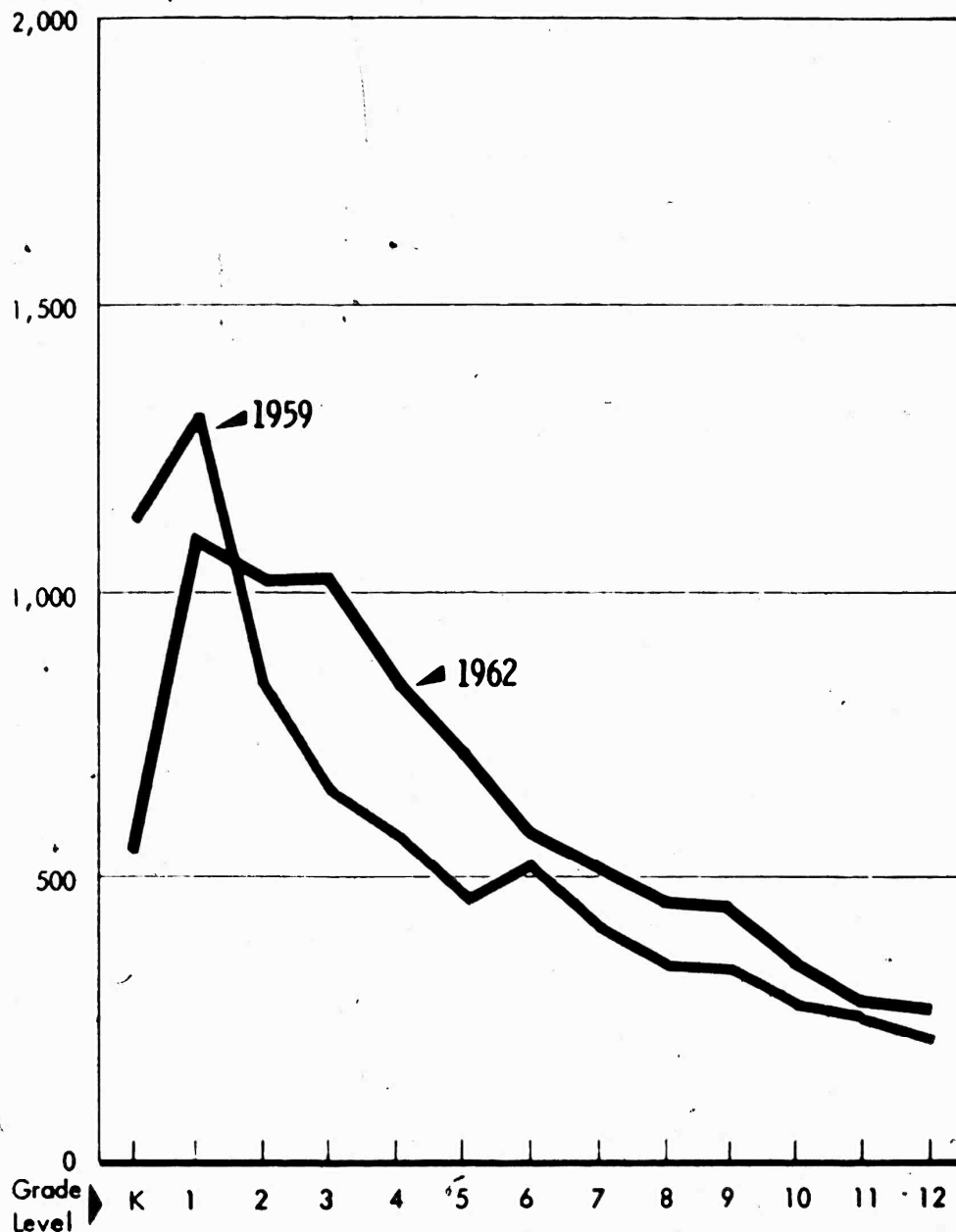


Chart 4.—Reported readers of braille registered with the American Printing House for the Blind, by grade level: 1959 and 1962

NOTE.—In 1959 there were 7,830 pupils registered (7,350 in grades 1 through 12 and 480 ungraded and multihandicapped); in 1962 the total was 8,930 (8,095 in grades 1 through 12 and 835 ungraded and multihandicapped). Numbers are approximates. Special students, adults, and those for whom mode of reading was unspecified are excluded.

How Many Children Can the Special Teacher Serve?

Average minimum numbers of visually handicapped children assigned to each special teacher tend to range between 4 and 6 and maximums between 10 and 15 in States which have developed specific standards in this area. Many factors affect the number of children assigned to each teacher, including:

1. Availability to the teacher of qualified supervisors and special books and educational aids. A ready supply of books in braille and large print, special equipment, and guidance from a supervisor who is a specialist in this field can increase significantly the amount of time available to the teacher for instruction. When these provisions are not made, valuable teaching time may be taken to perform such routine clerical duties as equipment and materials procurement and production, the organization and supervision of volunteer or paid transcribers and recordists, and the process of selection and dismissal of children served by the special program.
2. Age and grade span of the children.
3. Variation in the needs of children. Children who have acquired proficiency in the basic learning skills and those with less severe handicaps may need comparatively less special instruction. Young children and those with additional handicaps or complex learning problems tend to require more of the teacher's time, thereby reducing the number he can serve.
4. Geographic distribution of the children. The number of children will be fewer when served by itinerant teachers who must travel over large geographic areas or in congested metropolitan centers.

District Size

Another important consideration for program development is the size and location of school districts within the State or region to be served. The trend toward the consolidation of smaller districts has been apparent for years. As recently as 1960, however, only about 350 of the more than 35,000 districts operating schools in the Nation enrolled 12,000 or more pupils, and fewer than 125 enrolled 25,000 or more. Most districts with small enrollments do not have enough visually handicapped children to justify employing even one specially prepared teacher. Those with enrollments approximating 12,000 may have as few as 10 or 15 visually handicapped children, only 3 to 5 of whom may be educationally blind. During the 1970's, however, as many of those blinded by retrolental fibroplasia are graduated and sight utilization practices become more fully developed, districts enrolling no more than 12,000 children may expect to find only 1 or 2 who are educationally blind among the 10 or 15 visually handicapped children in their schools who require special services.

Neighboring school districts frequently pool staff and other resources to provide special education for their visually handicapped children. A large majority of school districts, however, enroll fewer than 3,000 children. The necessity to develop county and regional programs to serve these districts and to look to residential schools and State education departments for assistance in meeting the specialized instructional needs of these children is apparent.

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CHAPTER V

Some National Sources of Information and Educational Aids

Special Books and Aids

E DUCATIONAL PROGRAMS for visually handicapped children have been hampered from the beginning by a shortage of special equipment, books, and materials. The educational and recreational reading needs of blind and partially seeing children, as of all children, involve a wide variety of books. The problem is further complicated by the rapid increase in the number of visually handicapped children in recent years and the wide dispersal of many of these children into small local and regional public school programs where sharing of aids is more difficult to arrange. Many of these children now are enrolled in the elementary grades. As they progress through junior and senior high schools, books become longer and more difficult and costly to produce, and the variety of equipment and books needed becomes even greater. Some of the major national sources of books and equipment produced for the particular use of visually handicapped children are listed in this chapter. The many books and products available from commercial sources are not included but can be located through other references.¹

American Printing House for the Blind

If left to their own and commercial resources alone, most States are unable to cope with the complex problems of providing educational aids for visually handicapped children. The Federal act to "promote the education of the blind" was passed by Congress in 1879. It provides that an annual appropriation be made to the American Printing House for the Blind (1839 Frankfort Ave., Louisville, Ky.) for use in manufacturing and furnishing books and other aids and materials specially adapted for instructing visually handicapped school-age children. Public schools and educational institutions en-

¹ See appendix A.



California State Dept. of Education, Bureau of Audio-Visual Education, Sacramento.
Special educational aids help add meaning and bring the world within reach of the visually handicapped child.

rolling children whose vision with correction is not more than 20/200 are eligible for benefits under this act. Information, lists, and catalogs of braille, large print and talking books, and other aids may be secured upon request. Information about this program also may be obtained from administrators of special education in State departments of education or from superintendents of residential schools for visually handicapped children. These authorities have responsibility for ordering and distributing aids furnished under this program.²

² Current lists of special schools and State special education personnel may be secured from the Office of Education, Education for Exceptional Children Branch, Washington, D.C., 20202.

Division for the Blind, Library of Congress

Under this program library books (other than textbooks) in braille and talking book form are loaned free of charge to visually handicapped persons ages 5 and above whose vision with correction is not more than 20/200. These are distributed through regional libraries whose names and addresses may be secured from the Division for the Blind of the Library of Congress (Washington 25, D.C.), State education departments, or superintendents of residential schools for visually handicapped children.

Volunteer and Paid Braille Transcribers, Recordists, and Typists

Many local and State programs for visually handicapped children depend heavily upon volunteer and paid transcribers and recordists for books and educational materials not otherwise available in appropriate form. Volunteer braillists and recordists have made major contributions also to several national programs including that of the Library of Congress.³

The National Braille Club, established in 1948, has nationwide membership. It is composed of professional and lay persons and includes braillists, recordists, and others interested in the advancement of volunteer services for the visually handicapped. Names and addresses of officials of this and other volunteer organizations throughout the Nation may be secured from the Division for the Blind, Library of Congress.

The American Printing House for the Blind maintains a list of all textbook materials reported to them which are produced by volunteers in braille, large print, and disc and tape recordings. Mail inquiries are invited from schools, students, and other individuals for referral services on the location of these books.⁴

Some additional sources of books and aids are:

Howe Press, Perkins School for the Blind, 175 North Beacon St., Watertown 72, Mass.

Embosses braille books, music, and maps, and manufactures appliances and games for the blind.

³ See appendix A for list of publications helpful to persons using or transcribing books and materials for the blind.

⁴ Thomas A. Bledsoe. "General Catalog of Volunteer-Produced Textbooks at the American Printing House for the Blind," *The International Journal for the Education of the Blind*, Vol. XII, No. 1, October 1962.

Jewish Braille Institute of America, 48 East 74th St., New York 21, N.Y.

Elementary and secondary textbooks in braille and recorded form, circulating record library and special materials on request.

National Aid to Visually Handicapped, 3201 Balboa St., San Francisco 21, Calif.

Textbooks and other material are prepared in 18-point type, mostly through the assistance of volunteers.

National Braille Press, Inc., 88 St. Stephen St., Boston 15, Mass.

Maintains a volunteer service for transcription, including music, sound-scribing, and tape recordings.

Recording for the Blind, 121 East 58th St., New York 22, N.Y.

Records textbooks and educational material primarily for visually handicapped high school students preparing for college, college students, and adults engaged in some form of educational training.

Volunteers Service for the Blind, Inc., 332 South 13th St., Philadelphia 7, Pa.

Textbooks in braille and recorded form as well as other materials and services.

Distribution of Educational Aids

Efficient distribution to assure maximum use of all special books and educational aids has become increasingly important during this period of expanding programs and acute shortages. As enrollments have risen and school programs have increased, equipment and books needed in one district or residential school often are found in storage in another within the same or a neighboring State. Transcribers also often duplicate one another's work. Statewide and regional programs to coordinate the distribution of books and equipment and the transcribing of needed textbooks have been very effective in the areas in which they have been developed. The employment of field representatives by the American Printing House for the Blind and of specialists in the education of visually handicapped children by more State departments of education and county and city school systems have added additional resources for solving some of these complex problems. The following reports published by the American Foundation for the Blind will be of interest to persons responsible for the distribution of educational aids for blind and partially seeing children: *Guidelines for the Coordination and Distribution of Educational Materials for Blind Children*, 1961; and *National Conference on Preparation and Distribution of Educational Materials for Blind Children in Public Schools*, 1959 and 1960.

Low-Vision Optical Aids

The use of low-vision aids by children in special education programs has met with mixed success, but, in general, cautious optimism is developing. With the shift of emphasis in school programs from sight conservation to sight utilization has come the realization that many children with very low visual acuity no longer need be expected to rely solely upon braille or large-print books for their reading. Some are enabled to read ordinary print when trained and encouraged to hold it very close. Some are enabled to do so by exact refraction and stronger ordinary lenses. Others have benefited greatly from the use of magnifiers and special lenses. This is particularly true in certain programs and sections of the country where emphasis has been placed on a team approach to providing these aids and on continued guidance and followup study of their use. A growing number of eye specialists are recommending that all persons with very limited vision be examined thoroughly to see if they can benefit from the use of various types of magnifying devices and individually fitted low-vision optical aids. Special clinics have been formed in many localities to perform these services. Eye specialists, State and local education agencies, and health and vocational rehabilitation agencies generally are able to provide information concerning the location of these facilities. The National Society for the Prevention of Blindness serves as a national clearinghouse for information about low-vision aids clinics and the various types of aids available.

Suggested Readings

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THE UNIVERSITY OF THE STATE OF NEW YORK, STATE EDUCATION DEPARTMENT, BUREAU OF HANDICAPPED CHILDREN. *Adapting Materials for Educating Blind with Sighted Children*, Albany, N.Y.: The University, 1961.

APPENDIX A

Sources of Professional Literature

Residential schools for the visually handicapped, State education departments, and local school systems frequently have rather extensive collections of literature in this field, which are sometimes made available for loan. Some of the agencies and organizations which routinely publish material in this field include:

The American Association of Instructors of the Blind, 2363 South Spring Ave., St. Louis 10, Mo. Proceedings of national conventions and *The International Journal for the Education of the Blind*.

The American Association of Workers for the Blind, 1511 K Street NW., Washington, D.C. Proceedings of national conferences.

The American Foundation for the Blind, 15 West 16th St., New York 11, N.Y. Pamphlets on special topics and the *New Outlook for the Blind*. The Foundation also operates a lending library of more than 25,000 pieces of literature in this field.

Children's Bureau, U.S. Department of Health, Education, and Welfare, Washington 25, D.C. Pamphlets on selected topics.

Council for Exceptional Children, 1201 16th St. NW., Washington, D.C. *Journal of Exceptional Children* and monographs on special topics.

Council for the Education of the Partially Seeing, Division of the Council for Exceptional Children, 1201 16th St. N.W., Washington, D.C. *Newsletter*.

Division for the Blind, Library of Congress, Washington 25, D.C. Catalogs, book lists, and pamphlets on selected topics.

The National Society for the Prevention of Blindness, 16 East 40th St., New York 16, N.Y. Catalogs of publications, films, materials, and *Sight Saving Review*.

Office of Education, Education for Exceptional Children Branch, U.S. Department of Health, Education, and Welfare, Washington 25, D.C. Pamphlets on selected topics.

Office of Vocational Rehabilitation, Division of Services for the Blind, Department of Health, Education, and Welfare, Washington 25, D.C. Pamphlets on rehabilitation and employment opportunities.

Lists of Commercial Books and Materials

ABEL, GEORGIE LEE. *Resources for Teachers of Blind with Sighted Children*, Educational Series No. 9, New York: American Foundation for the Blind, 1957.

- GALISDORFER, LORRAINE.** *Educational Reading Guide for the Partially Seeing*. Buffalo, N.Y.: Henry Stewart, Inc., 1959. A list of reading materials available in 1959.
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- UNIVERSITY OF THE STATE OF NEW YORK, STATE EDUCATION DEPARTMENT, BUREAU FOR HANDICAPPED CHILDREN.** *Adapting Materials for Educating Blind With Sighted Children, and Sources of Books, Tangible Aids and Recordings for Blind Children*, Albany, N.Y.: The University, 1961. (Mimeo.)

Publications Helpful to Persons Using or Transcribing Books and Materials for the Blind

- Division for the Blind, Library of Congress, *Volunteer Braille Transcribing*, Revised Edition, Washington, D.C.: The Library, 1961.
- Dorf, Maxine B., and Scharry, Earl R. *Instruction Manual for Braille Transcribing*, Washington, D.C.: Division for the Blind, Library of Congress, 1961.
- Helms, Arthur. *Recording Books for the Blind*, New York: American Foundation for the Blind, 1961.
- Mueller, Ellise R. "Library Services for Blind Children Provided Through the New Jersey State Commission for the Blind," *Itinerant Teaching Service for Blind Children*, Appendix V, New York: American Foundation for the Blind, 1957.
- Proceedings of the National Braille Club Conferences (published periodically).
- Recordings for the Blind, Inc., *How to Use Educational Recordings Effectively*. New York 22: Recording for the Blind, 121 East 58th Street, 1962. A manual prepared for students and counselors.

APPENDIX B

Eye Examination Report

Name of pupil _____

Address _____

School _____ City _____

Grade _____ Birthdate _____ Sex _____

I. Diagnosis: _____

Approximate age or date of onset or first diagnosis _____

II. Prognosis:

Is condition relatively permanent and stationary? Yes _____ No _____

Nature and extent of possible change _____

III. Visual acuity: *Near* *Far*

Without glasses: Right _____ Right _____

Left _____ Left _____

Both _____ Both _____

With glasses: Right _____ Right _____

Left _____ Left _____

Both _____ Both _____

If visual fields are defective, please attach charts.

IV. Is child receiving type of treatment needed? Yes _____ No _____

If no, please specify: _____

V. Date child was examined or last treated _____, 19____

Date re-examination is recommended _____, 19____

VI. Has child been examined for possible use of low vision optical aids?

Yes _____ No _____. If child is fitted with an aid, please indicate

type _____, recommended reading

distance _____ and any special instructions for its

use _____

Examiner _____

Professional Title _____

Address _____

City _____ State _____

Please return this completed form to: _____

APPENDIX C

Acknowledgments

Many specialists actively engaged in work in, or closely related to, the education of visually handicapped children kindly took time from other pressing duties to review the material presented in this publication. Among those who made helpful suggestions were:

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Elizabeth Hatfield, Consultant in Statistics, National Society for the Prevention of Blindness, New York, N.Y.

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