

DOCUMENT RESUME

ED 051 617

EC 032 617

AUTHOR Misbach, Dorothy L.; Sweeney, Joan
TITLE Education of the Visually Handicapped in California Public Schools.
INSTITUTION California State Dept. of Education, Sacramento. Div. of Special Education.
PUB DATE 70
NOTE 95p.
EDRS PRICE MF-\$0.65 HC-\$3.29
DESCRIPTORS Administration, Curriculum, *Educational Programs, *Exceptional Child Education, Public Schools, *State Programs, *Visually Handicapped
IDENTIFIERS California

ABSTRACT

Intended as a guide and reference for administrators and teachers responsible for the operation of special educational programs for the visually handicapped in California public schools, the document first traces the historical and philosophical development of publicly financed education for visually handicapped children in California. Definitions, methods of identification, and incidence figures are given. Described are the types of programs offered for the visually handicapped: special and regular day classes, remedial and individual instruction, mobility instruction, payment of tuition, and residential schools. Factors to be considered in establishing and operating a program, such as legal authority and provisions, evaluation and placement procedures, counseling, and orientation program, are discussed. Guidelines for the various levels of school district personnel involved in operating a program are given. Examined are the implications of the limitations of visually handicapped students for instructional planning and curriculum. The final chapter identifies some additional state services for the visually handicapped. (KW)

EC032617

ED051617

Education of the

Visually Handicapped

in California Public Schools

CALIFORNIA STATE DEPARTMENT OF EDUCATION
Max Rafferty — Superintendent of Public Instruction
Sacramento, 1970

EC 032 617E

ED051617

2

Education of the



in California Public Schools

Prepared by

Dorothy L. Misbach and Joan Sweeney

Consultants in Education of the Visually Handicapped

BUREAU FOR PHYSICALLY EXCEPTIONAL CHILDREN

DIVISION OF SPECIAL EDUCATION

U.S. DEPARTMENT OF HEALTH, EDUCATION
& WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED
EXACTLY AS RECEIVED FROM THE PERSON OR
ORGANIZATION ORIGINATING IT. POINTS OF
VIEW OR OPINIONS STATED DO NOT NECES-
SARILY REPRESENT OFFICIAL OFFICE OF EDU-
CATION POSITION OR POLICY

1
2
3
4
5
6
7
8
9
10

Edited and prepared for photo-offset production by
the Bureau of Publications, California State Depart-
ment of Education, and published by the Department,
721 Capitol Mall, Sacramento, California 95814

Printed by the Office of State Printing
1970

FOREWORD

California public schools have the responsibility to provide educational programs that offer every child an opportunity to have the type, quantity, and quality of education he needs to develop to the full extent his native resources permit. To meet this responsibility, the schools must maintain programs that (1) have scope and depth sufficient to meet the educational needs of the most gifted child; (2) are flexible enough so that adaptations can be made as required to meet the educational needs of every less-gifted child; and (3) are complete enough to provide for every handicapped child the special services he needs to make full use of his potential.

Education of the Visually Handicapped in California Public Schools contains information that may be used to advantage by the schools in conducting an educational program for visually handicapped that provides opportunity for each of them to develop himself educationally and personally to the full extent his ability permits. I hope that all school personnel who have responsibility for the special educational program for the visually handicapped offered by their respective school districts will study the information presented, and I hope that each of you will endeavor to see that the information is used to advantage in strengthening and operating the special program for the visually handicapped maintained by your district.



Superintendent of Public Instruction

PREFACE

In 1927 legislation was enacted that provided some state financial support for public school programs for the visually handicapped. Before that time two school districts in California had established special day classes for blind and partially seeing children, but virtually none of the visually handicapped were educated together with seeing children in the public schools. At that time the majority of school-age blind children attended the California School for the Blind at Berkeley.

A dramatic increase in the number of visually handicapped children during the 1940s and 1950s was the chief reason for a change in philosophy regarding the education of the visually handicapped and the rapid growth of public school programs on an integrated basis. Today, at least 90 percent of the blind and practically all of the children identified as partially seeing are educated with nonhandicapped children in the public schools; and most of the visually handicapped participate in programs in which teachers with special credentials are used to supplement regular instruction.

This publication is intended for administrators, teachers, and personnel responsible for the operation of special programs for the visually handicapped. It is hoped that the compiled information will serve as a convenient guide and helpful reference to those attempting to see that each visually handicapped child is given an opportunity to learn to function at his fullest potential.

BARRY L. GRIFFING
*Acting Chief, Division
of Special Education*

EDWARD B. STARK
*Chief, Bureau for Physically
Exceptional Children*

CONTENTS

	<i>Page</i>
Foreword	iii
Preface	v
<i>Chapter</i>	
I Historical and Philosophical Development	1
History of the Program	1
New Philosophy	2
II Identification of the Visually Handicapped	5
Definitions	5
Methods of Identification	8
Registration	9
Incidence of the Visually Handicapped	11
III Programs for the Visually Handicapped	16
Special Day Classes	17
Regular Day Class Program	22
Remedial Instruction	22
Individual Instruction	23
Mobility Instruction	23
Payment of Tuition	24
Residential School	24
IV Establishment and Operation of Programs	26
Legal Authority for Establishing Program	26
Legal Provisions for Financing Program	27
Evaluation and Placement	28
Guidance and Counseling	31
Orientation Program	33
V Guidelines for Personnel	37
Administrative and Supervisory Personnel	37
Teaching Personnel	39
Guidance Personnel	41
School Nurse	42

<i>Chapter</i>	<i>Page</i>
Noncertificated Personnel	43
Teacher Recruitment	44
VI Curriculum for the Visually Handicapped	46
Special Educational Objectives	46
Communication Skills	50
Prevocational Abilities	53
Ability to Use Special Resources	53
General Curriculum	54
Evaluation of the Instructional Program	62
VII State Services for the Visually Handicapped	63
State Department of Education	63
State Department of Rehabilitation	67
Coordinating Council on State Programs for the Blind	67
Selected References	69
Appendices	84
Appendix A. Resource Agencies	84
Appendix B. Eye Report for Children with Visual Problems ..	86
Appendix C. Standard English Braille, Grade II	88

CHAPTER I

Historical and Philosophical Development

Publicly financed education for visually handicapped minors in California is provided by school districts, the offices of county superintendents of schools, and the residential California School for the Blind in Berkeley. Some 14 county superintendents and 72 school districts operated special programs for blind and partially seeing students in 1969, and 2,775 visually handicapped students were reported enrolled in public schools in California. In addition, 140 blind and 15 deaf-blind students were enrolled in the California School for the Blind.

History of the Program

Public education for the visually handicapped has developed in California over a period of more than 100 years. The California School for the Blind was established in 1860. It is operated by the State Department of Education, through the Division of Special Education, under the provisions of Education Code sections 25751-25754.

Because of the small numbers of blind and partially seeing children and their wide dispersion throughout the state, only a handful of school districts in large urban areas provided special education programs for the visually handicapped during the years preceding World War II. Los Angeles established the first public school class for blind children in California in 1917. In 1921 Los Angeles initiated a class for partially seeing children, and in 1924 San Francisco established two classes for the partially seeing – one at the elementary level and one at the secondary level.

Another factor that retarded the growth of special education for the visually handicapped at the district level was the additional cost of providing special teachers, facilities, equipment, and materials. In 1927 legislation was enacted to provide some state financial support for public school programs for physically handicapped minors,

including the visually handicapped. In 1947 legislation was enacted that required school districts to provide or contract for special educational services for physically handicapped minors and increased the level of state financial support to such districts.

During the postwar years the number of blind and partially seeing children in California and in the nation as a whole increased rapidly because of (1) the general population growth; and (2) an increase in the incidence of retrolental fibroplasia (impairment of the eyes of premature infants caused by excessive oxygen). In the 1940s and 1950s, several thousand premature infants became blind or severely visually impaired before the condition was almost completely eradicated as a result of medical research and careful control of oxygen administration in incubators in hospital nurseries.¹

This dramatic increase in the number of preschool blind children created a need for counseling services for their parents. Such services were established, with the result that many parents enrolled their visually handicapped children in regular nursery schools and public school kindergartens with seeing children. A number of parents, noting that their blind children were able to participate successfully in nursery schools with seeing children, approached school district governing boards and requested that integrated programs be established.

New Philosophy

Originally, separate programs were established for the blind and for the partially seeing; both groups were separated from seeing children. It was felt that visually handicapped children had special needs that could not be met adequately in regular classes. Blind and partially seeing children attending public schools had been transported to a centrally located building where they spent all or most of the day in a self-contained, multigraded classroom. There the visually handicapped were taught academic and skill subjects, such as reading and mathematics; if they participated in regular classes at all, their instruction was limited to such subjects as music or literature.

This type of segregated instruction, known as the special day class or cooperative plan, may have been influenced as much by environmental limitations as by the philosophy of the times. The

¹See A. C. Krause, "Effect of Retrolental Fibroplasia in Children," *Archives of Ophthalmology*, LIII (April, 1955), 522-29; T. L. Terry, "A Visual Defect of the Prematurely Born Infant," *Outlook for the Blind*, XXXIX (October, 1945), 211-13; and L. Zacharias, "Retrolental Fibroplasia: A Survey," *American Journal of Ophthalmology*, XXXV (October, 1952), 426-54.

lack of special instructional materials, such as braille and large-print textbooks paralleling the textbooks used in the regular classes, together with poorly lighted regular classrooms, made it very difficult for the visually handicapped to participate in the regular instructional program.

As more visually handicapped children enrolled in public schools, the philosophy of educating these children changed. The credential structure was revised to allow one teacher to work with both the blind and the partially seeing. Improved technology created the necessary instructional materials and proper facilities and equipment. New types of programs, described in Chapter III of this publication, were organized. Today, many visually handicapped children are able to integrate successfully with their seeing classmates of similar age and ability. It is felt that this experience is a realistic preparation for living as adults in a seeing community.

In this connection the statement of philosophy published in *The Pine Brook Report* is pertinent. Although this statement as written appears to be concerned primarily with the education of blind children, it seems equally applicable to educational programs for partially seeing children. The report reads, in part, as follows:

**Statement of the American Foundation for the Blind
Regarding the Education of the Blind Child of School Age**

The American Foundation for the Blind recognizes three types of education of blind children of school age:

1. Education in a public or private residential school for the blind
2. Education with the sighted in public or private schools with a resource or special class teacher available during the entire school day
3. Education with the sighted in public or private schools with itinerant teaching service available at regular or needed intervals.

In recognizing these types of education of the blind child of school age, the Foundation is recognizing the important and basic premise that *each blind child should be educated according to his individual needs and that not for a long, long time – if ever – will any of the three types of education listed above eliminate the other two.* It is also realized that the changing needs of each individual blind child may require flexibility which will permit him to move from one type of program to another. In addition, the Foundation does not hesitate to state that it would like to see all three types available for blind children throughout the nation so that these children may be placed educationally according to the type best suited to meet their individual needs. The Foundation makes an even stronger plea for superior standards to be maintained in each type of education; it holds that the setting up and administering of any one of the systems is a very grave responsibility,

and that the welfare of the individual blind child must be the primary consideration in making educational placement. Intelligent placement of an individual blind child into the educational setting best suited to his particular needs is a serious decision, not to be made by a single person or a single agency, but by the pooled opinion of qualified persons, each of whom brings his judgment to bear in the necessary deliberations. And in all of this it is wise to remember that a grave injustice is done if a blind child is placed in an educational setting that is being maintained by standards that are low in comparison with those held for sighted children in the same state or locality.

The Foundation has no hesitancy in stating that some blind children can best be educated with sighted children, and that some blind children can best be educated in the residential school. The Foundation has even less hesitancy in stating that any system of educating blind children can be charged with moral guilt if it does not provide for enrolled blind children "an education according to their individual interests and aptitudes at least *equal* to that which they would have received had they not been blind." This quotation is from the proceedings of the 1949 International Conference of Workers for the Blind held at Oxford, England, and is one of the most important statements on this subject since the turn of the century.

It is recognized that good systems of education of the blind may be expensive. However, the Foundation is more concerned that, whatever the cost, it should be an investment by society that will bring returns to society in the form of an adult blind individual who has been educated according to his individual needs, and who can make his maximum contribution to society on that basis.

The foregoing statement of philosophy is not dictated by the American Foundation for the Blind; it is dictated by human parenthood and approved by eminent educators, psychologists, psychiatrists, theologians, social workers, etc., — all of whose combined opinion the American Foundation for the Blind recognizes as greater than any that could be arrived at by its small staff. But only time and the unfolding needs of each blind child will indicate the best educational pattern for each child. The Foundation sincerely hopes that all patterns will be available for practical consideration when the time for educational placement comes in the life of each blind child.²

²*The Pine Brook Report: National Work Session on the Education of the Blind with the Sighted.* Group Reports, No. 2. New York: American Foundation for the Blind, 1954, pp. 54-55.

CHAPTER II

Identification of the Visually Handicapped

Special education services can be established for three general classifications of minors: the educationally handicapped, the mentally exceptional, and the physically handicapped. The visually handicapped are included in the last category.

Definitions

Before a special program for the visually handicapped can be established, the visually handicapped must be identified. The following definitions will be helpful in identification:

Physically Handicapped Minor

Education Code sections 6801 and 6802 define the physically handicapped minor as follows:

Subject to the provisions of this article (commencing at Section 6801) and Section 894, the governing board of any school district may make such special provisions as in its judgment may be necessary for the education of physically handicapped minors. "Physically handicapped minor," as used in this article (commencing at Section 6801) means a physically defective or handicapped person under the age of 21 years who is in need of education. [Section 6801]

Any minor who, by reason of a physical impairment, cannot receive the full benefit of ordinary education facilities, shall be considered a physically handicapped individual for the purposes of this chapter. Such minors include the following, as defined by the State Board of Education:

- (a) The deaf or hard of hearing
- (b) The blind or partially seeing
- (c) Orthopedic or other health impaired
- (d) The aphasic
- (e) The speech handicapped
- (f) Other minors with physical illnesses or physical conditions which make attendance in regular day classes impossible or inadvisable
- (g) Minors with physical impairments so severe as to require instruction in remedial physical education [Section 6802]

The Visually Handicapped

The term "visually handicapped" as used in this publication refers to those children who are defined as blind or partially seeing.

The Blind

The California Administrative Code, Title 5, Education, Section 3600 (d) defines blindness in a minor as follows:

A minor is blind who comes within either of the following descriptions:

- (1) His visual acuity in the better eye, after the best correction, is 20/200 or less.
- (2) His visual loss is so severe that, for educational purposes, vision cannot be used as a major channel of learning.

The Partially Seeing

The California Administrative Code, Title 5, Education, Section 3600 (e) defines the partially seeing minor as follows:

A minor is partially seeing who comes within either of the following descriptions:

- (1) His visual acuity is 20/70 or less in the better eye, after the best correction, and he can use vision as a major channel of learning.
- (2) His vision deviates from the normal to such an extent that, in the combined opinion of a qualified educator and either physician and surgeon or an optometrist, he can benefit from the special educational facilities provided partially seeing children.

Visual Efficiency

Hathaway's book on the partially seeing child contains the following information on visual efficiency¹:

A report adopted by the Section on Ophthalmology of the American Medical Association defined visual efficiency as that degree of competence of the eyes to perform their physiologic function, including (1) corrected visual acuity at distance and near; (2) visual fields; (3) ocular motility with absence of double vision; and (4) binocular vision. Although these factors are not equally important, vision is impaired if they are not all well coordinated. Other important functions include color perception, adaptation to light and dark, and accommodation. . . .

Distance visual acuity usually is tested at 20 feet (6 meters) because it is believed that the ciliary muscle in the emmetropic eye is generally in a state of rest at that distance, no accommodation being necessary unless hyperopia is present. Visual acuity is usually recorded in the form of a fraction in which

¹Winifred Hathaway, *Education and Health of the Partially Seeing Child* (Fourth edition). Revised by Franklin M. Foote, Dorothy Bryan, and Helen Gibbons. New York: Columbia University Press, 1959, pp. 158-59.

the test distance (feet, meters or inches) is recorded in the numerator, and the denominator represents the distance at which the smallest letters or symbols discriminated by the patient would subtend 5 minutes of arc. As seen by Appendix Table 1, what appears to be a mathematical fraction does not represent a true percentage of visual acuity.

Appendix Table 1
Percentage of Central Visual Efficiency Corresponding
to Visual Acuity Notations for Distance

Snellen		Metric	Percent visual efficiency
English			
20/20		6/6	100
20/32		6/10	90
20/50		6/15	75
20/64		6/20	65
20/80		6/24	60
20/100		6/30	50
20/200		6/60	20

Although the visual angles may be the same, the American Medical Association committee felt that a Snellen notation for distance is not the exact equivalent to Snellen notation for near in respect to visual efficiency because of other influences, such as accommodation and size of retinal image. Also, the visual disability in reading with acuity for near of 14/35 is far greater than the visual disability for distance with 20/50, which has the same visual angle. Because of the importance of good near vision in reading and work, ... Table 2 weighs this disability more heavily than former tables....⁵

Appendix Table 2
Percentage of Visual Efficiency Corresponding
to Central Visual Acuity for Near

Snellen	Jaeger	Point	Percent visual efficiency
14/14	1	3	100
14/18	2	4	100
14/28	3	6	90
14/35	6	8	50
14/56	8	12	20
14/70	11	14	15
14/112	14	22	5
14/140	2

⁵"Estimation of Loss of Visual Efficiency," *AMA Archives of Industrial Health*, XII (October, 1955), 439.

Methods of Identification

The identification of each blind and partially seeing child at an early age is important. In rapidly growing communities or in areas where only limited services are available, schools are often not aware of the special needs of blind and partially seeing children because they have not been identified as visually handicapped. If lines of communication are established with the preschool counselors for the blind and if a good vision-screening program is instituted in the schools, early identification of the blind seems probable.

Preschool Examinations

All children should have complete physical examinations before they are old enough to enroll in school. Examination of the eyes is considered an important part of this appraisal. A publication of the State Department of Education states that "if eye examinations are made before children reach the age of four, they may reveal serious eye defects, such as amblyopia, which may then be treated before the children enter school and sufficiently early to secure the best results from treatment."² Blind children are often identified in infancy by pediatricians.

Preschool Services

Special services for blind infants are available through two resources in California. When a pediatrician or any other person becomes aware of a blind infant, he should refer parents living in northern California (north of the San Luis Obispo, Kern, and San Bernardino County lines) to the Variety Club Blind Babies Foundation; and those living in southern California, to the State Department of Education in Los Angeles. The Variety Club Blind Babies Foundation, a nonprofit, nonsectarian organization, offers home counseling services to the parents of young blind children. Parents of blind preschool children in southern California are served by educational advisers for the preschool blind working under the supervision of the Bureau for Physically Exceptional Children.

Preschool counselors often serve as an excellent resource to public school personnel interested in projecting plans for blind children. The preschool workers know each child by name, age, residence, and, probably most important of all, by stages of growth and development. This information proves valuable to the nursery school or kindergarten teacher. Of particular value to all teachers, mobility

²A *Guide for Vision Screening in California Public Schools* (1964 edition). Sacramento: California State Department of Education, 1964, p. 3.

instructors, and counselors is the knowledge of the onset of blindness. This information, which can be secured from the eye specialist, might be in the preschool counselor's file; it should become a part of each blind child's cumulative record.

Vision Screening

Vision screening is the chief method of identification of the visually handicapped. Eye specialists, health personnel, and educators generally agree that the Snellen chart, preferably in a lighted cabinet, is a good instrument for vision screening.

A Guide for Vision Screening in California Public Schools recommends that the Snellen test be administered early in the school year to every pupil in kindergarten or first grade and to every child in any other grade who is enrolled for the first time in a school of the district. The guide further recommends that the test be repeated in grades three, five, seven, nine, eleven, and thirteen.³

Eye Specialist's Report

Current and complete information on each visually handicapped child's eye condition is essential. This information is provided on an eye specialist's report, which includes the history and cause of the visual impairment, measurements of current visual acuity and field of vision, indications of color perception, prognosis, and recommendations concerning visual aids and use of the eyes. (See the sample report contained in Appendix B.) The term "eye specialist" as used in this publication includes both the ophthalmologist and the optometrist. Ophthalmologists are physicians who specialize in treating eye defects and diseases and in examining the eyes. Optometrists examine eyes and prescribe glasses, but they are not medical doctors.

The eye report is used by school administrators and special teachers to assist in determining educational needs and placement, curriculum planning and adaptation, and the need for large print or braille. It is also used for the registration of the blind and the partially seeing.

Registration

The Bureau for Physically Exceptional Children, California State Department of Education, annually conducts a registration of blind and partially seeing students enrolled in public schools in California. It is hoped that school health personnel and special education staff

³*Ibid.*, p. 4.

will annually review the needs of each student before preparing the reports for this registration. *Although a report is to be submitted to the bureau each year, an annual eye examination is not required by the Department of Education. Each student should return for further examination as recommended by the examining eye specialist.*

The information secured through the registration is very valuable to district, county, and state personnel in projecting plans for meeting the needs of visually handicapped students.

Blind Students

A national registration of blind students enrolled in publicly supported schools is performed annually to implement P.L. 84-922, an act "to promote the education of the blind" that was passed in 1956. This act makes it possible for one national resource, the American Printing House for the Blind, located in Louisville, Kentucky, to provide many of the special books, educational aids, and devices needed for blind students. Federal funds are appropriated annually to the American Printing House for the Blind for use in producing special materials and equipment.

On the basis of the number of blind students registered with the American Printing House, each state is allocated its portion of the national appropriation and is delegated the authority for distributing the allotment. This allotment is often referred to as the "APH quota." The Bureau for Physically Exceptional Children, State Department of Education, maintains the records for California's public schools except for the California School for the Blind, which handles its own registration and maintains its own quota records. The quota system functions on a credit basis and involves no actual exchange of monies.

In California, each school district and each office of the county superintendent of schools registering blind students is informed of the quota available for procuring items for the pupils. The amount of the quota is the product of the number of blind students registered and the federal per capita allotment. In recent years this quota has approximated \$60 per registered blind student. For purposes of registration a student must be classified as blind, must be enrolled in a public, private, or parochial school as of the first Monday in January, and must be at less than college level but not lower than the kindergarten level.

Partially Seeing Students

The identification of partially seeing students is important in order that appropriate educational services, including special teachers and

special materials, may be provided. As partially seeing students are identified through vision screening and other means, schools are requested to register each such student with the Bureau for Physically Exceptional Children, State Department of Education, at the same time that blind students are registered.

Instructions for conducting this registration are distributed each fall to county and district superintendents of schools and to personnel directing or coordinating the special programs for the visually handicapped. This registration serves as an excellent basis for the identification of visually handicapped children needing special education services. In rapidly growing communities the registration pinpoints the need for initiation or expansion of special programs. It also serves as a basis for estimating the number of large-print books needed in the state.

Incidence of the Visually Handicapped

There is a great variance in the estimates made concerning the numbers of blind and partially seeing children in the United States. For many years the National Society for the Prevention of Blindness estimated that one out of 500, or 0.2 percent, of preschool- and school-age children is partially seeing.⁴ The best national estimate at the present time is that of the U.S. Office of Education, which suggests that 0.06 percent of schoolchildren need special assistance as partially seeing.⁵ According to this estimate, California should have 2,647 partially seeing students in kindergarten through grade twelve. According to the 1969 state registration, however, California reported only 941 partially seeing students.⁶ It is known that this state's reporting is incomplete, but it might also be questioned whether the 0.06 percent estimate is too high.

According to information Ashcroft received from Romaine P. Mackie of the U.S. Office of Education, the prevalence of blindness is 1 in 3,000 or 0.03 percent of children of school age.⁷ In 1969 the American Printing House for the Blind reported that of all legally blind students in the country, 7,930, or 39.0 percent, were enrolled in residential schools for the blind; 390, or 2.0 percent, were adult trainees; and 12,192, or 59.0 percent, were enrolled in public school

⁴See Hathaway, *op. cit.*, p. 16.

⁵Samuel C. Ashcroft, "Blind and Partially Seeing Children," in *Exceptional Children in the Schools*. Edited by Lloyd M. Dunn. New York: Holt, Rinehart & Winston, Inc., 1963, p. 424.

⁶California State Department of Education enrollment data based upon October, 1969, reports for kindergarten and grades one through twelve.

⁷Ashcroft, *loc. cit.*

programs.⁸ These figures were compiled from the American Printing House's January 6, 1969, registration of blind children enrolled in public and residential schools in the United States and outlying territories. California's potential of school-age blind in kindergarten through grade twelve, according to the preceding prevalence percent, is 1,324.⁹ The California APH registration for the 1968-69 school year was 1,834 legally blind in public schools and 140 registered at the California School for the Blind, making a total of 1,974 for the state. California has exceeded by 650 the normal expectancy of blind children in this state. Because this excess number has been consistent for several years, it is thought that 0.05 percent is a better basis for estimating the school population of blind children in California. It should further be noted that more than half of the children registered as blind read some form of print (see Table II-1).

Table II-2 shows the American Printing House registration of legally blind children enrolled in public schools in California from 1957 to 1969. The peak enrollments of blind children for 1969 are in grades nine and ten. Because the number of ungraded (and probably multihandicapped) children has increased from 27 in 1957 to 242 in 1969, it might appear that the blind multihandicapped are being adequately served by the combined efforts of the public schools and the California School for the Blind. However, Simmons' report gives cause for considering what types of services are needed for these children, for many of them are not in school.¹⁰

Wagner, of the American Foundation for the Blind, reported on a national survey to identify the deaf-blind less than twenty years of age. The total number registered for 1966-67 was 533. In the same year 14 deaf-blind children were enrolled in the California School for the Blind, Berkeley. Five were in other educational programs; 28 were at home; three were noted as being in institutions for the mentally retarded. These figures total only 50 identified deaf-blind children in California. The figure of 533 seems far too small.¹¹

⁸See *Distribution of January 6, 1969 Quota Registrations by School Grades and Braille and Large Type Reading*. Louisville, Ky.: American Printing House for the Blind, 1969.

⁹See *Enrollment in California Public Schools, Spring and Fall, 1968*. Prepared by the Bureau of Administrative Research and District Organization. Sacramento: California State Department of Education, 1969.

¹⁰See William D. Simmons, "A Survey of Blind, Severely Visually Impaired, Multiply-Handicapped Children in California, A Preliminary Report," in *Proceedings of the West Coast Conference on Research Related to Blind and Severely Visually Impaired Children*. New York: American Foundation for the Blind, 1965.

¹¹See *Register of Children with Impaired Vision and Hearing, Total Number of Children and Educational Placement by State, Academic Year 1966-67*. Compiled by Elizabeth M. Wagner. New York: American Foundation for the Blind, 1968 (mimeographed).

TABLE II-1
 American Printing House Registration of Blind Students Enrolled in California
 Public Schools on January 6, 1969, by Grade and Reading Level

Grade	Braille	Braille and large print	Large print	Large print and ink	Regular ink	Aural	Total
Kindergarten	20	5	13	2	1	20	61
First	36	8	59	16	4	1	124
Second	22	6	38	7	4	1	78
Third	25	9	70	17	2	0	123
Fourth	28	6	58	10	4	0	106
Fifth	23	4	52	19	1	0	99
Sixth	29	2	58	18	1	0	108
Seventh	28	5	45	24	7	0	109
Eighth	57	8	40	22	8	1	136
Ninth	101	6	46	10	7	1	171
Tenth	106	2	38	27	12	0	185
Eleventh	77	2	33	39	11	1	163
Twelfth	73	5	18	15	16	2	129
Ungraded	60	6	61	17	2	96	242
Total	685	74	629	243	80	123	1,834

SOURCE: Data compiled from reports on blind and partially seeing students submitted to the Division of Special Education, California State Department of Education, by California school districts and the office of county superintendents of schools.

TABLE II-2
 American Printing House Registration of Blind Students Enrolled in California Public Schools,
 1956-1969, by Grade and School Year

Grade	'56-57	'57-58	'58-59	'59-60	'60-61	'61-62	'62-63	'63-64	'64-65	'65-66	'66-67	'67-68	'68-69
Kindergarten	73	65	65	64	68	35	31	27	42	32	38	61	61
First	86	123	169	177	195	119	121	118	105	106	103	110	124
Second	75	94	112	143	181	181	128	103	121	100	112	109	78
Third	66	96	106	129	159	190	186	138	103	121	102	115	123
Fourth	54	78	94	103	137	159	189	190	141	94	115	109	106
Fifth	48	70	78	103	109	139	155	195	177	146	101	108	99
Sixth	46	53	66	83	120	103	135	162	193	168	132	115	108
Seventh	46	46	58	88	79	122	112	135	148	188	169	127	109
Eighth	20	53	48	59	82	72	117	105	123	149	184	174	136
Ninth	20	31	54	47	64	97	79	109	103	130	155	186	171
Tenth	19	33	39	59	63	60	91	84	109	104	136	163	185
Eleventh	20	25	37	36	57	57	59	90	77	103	96	133	163
Twelfth	15	18	18	31	35	53	48	56	88	79	94	97	129
Ungraded	27	15	13	32	33	45	70	97	77	115	109	132	242
Total	615	800	957	1,154	1,382	1,432	1,521	1,609	1,607	1,635	1,646	1,739	1,834

SOURCE: Data compiled from reports on blind and partially seeing students submitted to the Division of Special Education, California State Department of Education, by California school districts and the offices of county superintendents of schools.

Realizing that the rubella epidemic of 1964-1966, which caused many expectant mothers to contract German measles, greatly increased the number of multihandicapped children, the State Department of Education requested Berthold Lowenfeld and Donald Calvert to conduct surveys identifying the multihandicapped blind and multihandicapped deaf children in California. These studies were completed in May, 1968. Dr. Lowenfeld identified 240 deaf-blind children of preschool years through age 20. In addition, many multihandicapped deaf or blind children are in state hospitals or at home and are not being served. More emphasis must be given to providing appropriate educational facilities for these children.¹²

¹²See Berthold Lowenfeld, "Report on Multihandicapped Blind and Deaf-Blind Children in California." A report submitted to the Division of Special Education, California State Department of Education, May, 1968. See also Donald R. Calvert, "A Report on Multihandicapped Deaf Children in California." A report submitted to the Division of Special Education, California State Department of Education, May, 1968.

CHAPTER III

Programs for the Visually Handicapped

In California public schools the following special programs are authorized for the visually handicapped (see Education Code Section 6802.1):

1. Special day classes
 - a. Integrated instructional programs
 - (1) Integrated class in one school
(resource teacher program)
 - (2) Integrated class in two or more schools
(itinerant teacher program)
 - b. Self-contained class
2. Regular day class program
3. Remedial instruction
 - a. In other than physical education
 - b. In physical education
4. Individual instruction

In addition, certain other programs are authorized; all of the programs will be described in this chapter.

School districts may operate the type of program or combination of programs that best meet the needs of their visually handicapped students. School administrators should evaluate and reevaluate the needs of their students and modify their programs for the visually handicapped according to the findings of their evaluations and the best professional research and advice.

In initiating a new program for the visually handicapped, the community will need to consider the distance and time involved in transporting students daily, the geographic area and terrain, the proximity of the high school and the junior college, the number of students in the area who have additional handicaps, and other factors. Possible variations and combinations of services should also be considered. If two teachers are to be employed by one school

district, for example, one teacher might serve as a resource teacher and the other as an itinerant teacher. In some instances a resource teacher might teach in the resource room at the elementary grade level and extend his services to the high school as an itinerant teacher.

Special Day Classes

The Education Code defines special day classes as follows:

As used in this article, special day classes includes integrated programs of instruction for physically handicapped children, including those handicapped in vision or hearing, where the services of a qualified special teacher are provided [Education Code Section 18101.6].

Integrated Instructional Programs

The Education Code defines integrated instructional programs as follows:

An integrated program of instruction for physically handicapped children, including those handicapped in vision or hearing, shall be defined as any program in which such physically handicapped children receive their education in regular classrooms from regular classroom teachers, but receive, in addition, supplementary teaching services of a full-time special teacher possessing a valid credential to teach exceptional children of the type enrolled in the program. Such supplementary teaching services may include instruction in the appropriate tool skills, the provision of special materials and use of appropriate special equipment, and counseling and guidance necessary to enable physically handicapped children and those handicapped in vision and hearing to benefit fully from their instruction.

As used in this section, physically handicapped children means those physically handicapped children who are deemed eligible for special class placement as defined by the State Board of Education. [Education Code Section 18101.6; see also Education Code Section 6802.1 (a) and (c).]

The majority of California school districts have chosen to establish programs that integrate the visually handicapped with sighted students. Parents are especially pleased with integrated programs because their blind or partially seeing child is permitted to live at home, to attend a nearby public school that provides the special services he needs, and to associate with his peers in his own neighborhood. Both the resource teacher program and the itinerant teacher program are so integrated.

Resource teacher program. In the resource teacher program, blind and partially seeing students are transported to a centrally located school where they attend regular classes and, in addition to the regular instruction, receive special instruction from a resource

teacher credentialed to teach the visually handicapped. A resource room is available to the resource teacher and the visually handicapped students.

Program planning in the resource program should be highly individualized and very flexible. The resource teacher plans, cooperatively with the regular teachers, the best possible instructional program for each visually handicapped child under the supervision of the principal of the school in which the program is housed and with the knowledge of the coordinator or director of special education. The resource teacher has major responsibility for teaching the early stages of reading and writing, typing, and any other skills requiring individual or small group instruction. As the need arises in the regular classroom for individual or small group instruction or for special equipment not easily transported, the visually handicapped child is free to go to the resource teacher for special assistance.

To fulfill his role adequately, the resource teacher must be familiar with the curriculum and the instructional materials for each grade served by the special program. In addition, he must know how to obtain materials available in special media, such as braille, large print, and recorded forms, that may be needed by each visually handicapped child. A thorough knowledge of braille and of the special methods used in teaching blind and partially seeing children is essential to the resource teacher.

The resource room should be conveniently accessible to all visually handicapped children enrolled in the regular classes. The room should be large enough to house bulky materials and equipment such as braille and large-print encyclopedias, dictionaries, and textbooks; talking books; tape recorders; and typewriters and braillewriters. The room should be well lighted, permitting the children to make the best use of their limited vision. Even though a small number of children will be using this room at a given time, each child should be assigned a desk or table space in the resource room. A room approximating the size of a regular classroom, or larger, has been found to be adequate as a resource room. Provisions for state school building aid are described in Chapter VII under "Bureau of School Planning."

Blind and partially seeing pupils in the elementary grades usually need extra space in the regular classroom for storage of large books and other equipment. An extra desk or a shelf in a corner of the room permits the pupil to organize his materials and to locate them without delaying the teacher and class. Visually impaired students in junior and senior high schools also need extra space for materials. An extra locker or a shelf in the library is helpful.

In the resource teacher program, the blind or partially seeing child attends the regular class. The resource teacher records his attendance in the special day class for purposes of state allowance. In the attendance register of the regular class his name is flagged as physically handicapped. Financial provisions for this program are described in Chapter IV. Maximum enrollment in this program is limited by Education Code Section 6802.2.

School districts desiring special services may contract with the office of the county superintendent of schools or another district if the special service is provided at a location within a reasonable distance.

Some teachers and parents prefer the resource teacher type of program, especially for the young blind child or the child having a severe visual problem who needs frequent individual assistance, because the resource teacher is easily accessible for individual attention.

Itinerant teacher program. In the itinerant teacher program, blind and partially seeing children attend regular classes in the local schools and, in addition to the regular instruction, receive special supplemental instruction from an itinerant teacher credentialed to teach the visually handicapped. Under present regulations no special provision is made for transporting blind or partially seeing children because the itinerant teacher travels to the school where they are enrolled. The Education Code provides that "such special teacher shall serve visually handicapped minors for the full schoolday established by the governing board for regular pupils in the school or schools enrolling such visually handicapped pupils" (Education Code Section 6802.1 (c)).

Flexibility is one of the key words to success in the itinerant teacher program. The special services of the itinerant teacher may include instruction in the tool skills and in the use of appropriate special equipment, the provision of special materials, and the counseling and guidance necessary to enable the visually handicapped children to benefit fully from such instruction.

Of necessity the itinerant teacher must schedule a definite time for working with each child, thus providing a plan for the needed individual assistance. However, the amount of time spent weekly with each child may vary considerably. For instance, a blind pupil in the elementary grades may require daily visits for varying lengths of time; a partially seeing pupil may need visits three or four times a week while establishing good visual and listening habits; a high school student may need special assistance while learning to become more

adept at taking notes or learning new braille mathematics signs; and a student suffering rapid loss of vision will need time for counseling as well as for work in the skill subjects.

The overall weekly and monthly schedule of the itinerant teacher must provide ample time for conferences with parents, eye specialists, school personnel, counselors, and individual children; for spending extra time with certain children when it is necessary; for contacting transcribers and others who prepare materials; and for actually preparing materials.

The list of responsibilities indicates that the itinerant teacher program requires an unusually good teacher: According to one source, "*a fortunate choice in the selection and employment of this teacher can mean the difference between failure and success of the program.*"¹

The itinerant teacher program requires a central work area and storage space rather than a large classroom. It is essential that the itinerant teacher have a telephone in the central work area and that a system be worked out for transmitting messages to him. The teacher needs space to store bulky materials and equipment, such as braille and large-print encyclopedias and textbooks, tape recorders, braille-writers, and typewriters. These requirements suggest that the work area and storage space be located in the central administration area somewhere near other instructional materials centers. In each school enrolling a visually impaired child served by the itinerant teacher, there must be a separate work area available for at least a portion of each school day. Maximum enrollment in this program is also limited by Education Code Section 6802.2. Blind or partially seeing children using the services of an itinerant teacher may be enrolled in one or more school districts or counties. Financial provisions for this program are described in Chapter IV.

When a school district operates an itinerant teacher program, the special teacher keeps the attendance of the visually handicapped. In the attendance register of the regular class, the visually handicapped child's name is flagged.

The itinerant teacher program is a practical way for the office of the county superintendent of schools to serve visually handicapped children who are enrolled in a wide range of grades and who live in scattered geographic areas.

The county superintendent of schools is mandated to establish and maintain programs for visually handicapped minors "who reside in

¹*Itinerant Teaching Service for Blind Children: Proceedings of a National Work Session Held at Bear Mountain, New York, August 20-24, 1956.* Group Reports, No. 5. New York: American Foundation for the Blind, 1957, p. 12.

the county and in elementary or unified school districts which have an average daily attendance of less than 8,000 in the elementary schools of the districts or in unified or high school districts which have an average daily attendance of less than 8,000 in the high schools of the districts, whenever such districts have not provided nor entered into contract with other districts to provide such programs" (Education Code Section 894).

It is possible for the county superintendent to provide integrated programs of instruction for visually handicapped children of elementary or secondary grade levels. (See Education Code sections 11204, 18355, and 18358, and the California Administrative Code, Title 5, Section 3691.)

The county superintendent of schools will keep the attendance of the visually handicapped students. These students shall be enrolled as pupils in a special day class for purposes of the state allowance (see the California Administrative Code, Title 5, Education, Section 3610).

When the integrated program is operated by the county superintendent of schools, the regular teacher is to identify the visually handicapped child as PHT and keep a record of his attendance on a day-to-day basis for reporting to the special class teacher. The regular teacher does not include the child's attendance for the district's foundation program support.

The special teacher is to keep the register on a day-to-day basis, using the record of the regular teacher. The attendance will be reported by the county superintendent on Form J-22, "Report for Special Programs," for the additional allowance and on Form J-27 or J-28, "Report of Schools and Classes Maintained by the County Superintendent of Schools," for the necessary small school apportionment.

The itinerant teacher program permits the highest degree of integration in that the visually handicapped child may live at home, associate with his peer group in the neighborhood, attend the school he would normally attend if he were not handicapped, and, in addition to the regular school services, receive the assistance of the special teacher. This special service is very valuable for blind pupils in kindergarten, for many of the partially seeing students from kindergarten through grade fourteen, and for teenage blind students. Living in the community and being able to participate in extra-curricular or after-school activities with classmates is especially important to teenagers. Living at home is valuable to children of all ages.

Self-Contained Class

The self-contained class seems especially suited to the needs of some of the severely multihandicapped pupils. In this class the children have an opportunity to become acquainted with a small group of children and are not subjected to the pressures of keeping pace with children having greater capabilities.

In school districts or counties where there are groups of visually handicapped children who have additional handicaps such as deafness, cerebral palsy, or mental retardation, consideration should be given to establishing self-contained classes for the visually handicapped. Such classes, if taught by credentialed teachers of the visually handicapped, could be established for the deaf-blind, the visually handicapped with orthopedic impairments, or the mentally retarded-visually handicapped.

The room for the self-contained class should be of standard classroom size, providing room for a variety of activities and space for the bulky materials and equipment needed for the blind and partially seeing.

Each visually handicapped child enrolled in the self-contained class is scheduled in that class "for at least three-fourths of the minimum school day for that pupil's grade level" (California Administrative Code, Title 5, Education, Section 3610; see also Section 3620).

Special transportation may be arranged within the school district or by interdistrict or county agreement.

Regular Day Class Program

The regular day class program is "a program of assistance to visually handicapped minors enrolled in regular day classes who require special services and equipment beyond the services provided to pupils not determined to be visually handicapped to benefit fully from regular classroom instruction. Such services may include, but are not limited to, supplemental teaching, transportation, teaching aides, and specialized equipment" (Education Code Section 6802.1(b)).

Remedial Instruction

A remedial class is a class "providing physically handicapped minors who are excused in small numbers, for not to exceed one class period or one hour from their regular or special program, remedial instruction or remedial physical education" (Education Code Section 6802.1(d)).

Other Than Physical Education

In school districts or counties where individual visually handicapped children are enrolled in special day classes for the deaf or

hard of hearing, the orthopedic or other health impaired, or the mentally retarded, remedial instruction is a way to bring assistance to them from a credentialed teacher of the visually handicapped.

The teacher who provides remedial instruction travels from school to school as an itinerant teacher does, but he maintains a special register for the actual number of minutes worked with each visually handicapped child. The regulations for this type of program do not permit counting the time involved in preparing materials or conferring with doctors, nurses, school personnel, or transcribers, although both functions are considered important parts of the program. Remedial instruction has, however, served its purpose while attempting to find a way to provide the supplemental teaching desired. When a school district needs a special service for several visually handicapped students, the itinerant teacher program is recommended.

Physical Education

Some schools have sufficient numbers of handicapped students to warrant the establishment of a limited or more individualized physical education program. This type of program can be of considerable value to visually handicapped students if the daily activities are carefully planned.

The total average daily attendance of students in special physical education classes for one level may not exceed 1 percent of the average daily attendance of the school district for that educational level, nor may current expense reported be in excess of that incurred for the 1 percent. (See California Administrative Code, Title 5, Education, sections 3630-3633.)

Individual Instruction

A program of individual instruction provides instruction "to physically handicapped minors in hospitals, sanitoriums, preventoriums, in the home, or under other circumstances as defined by the State Board of Education" (Education Code Section 6802.1(e); see also Section 6816).

One hour of teaching time counts as one day of attendance for this program only. Any period of teaching time shall be counted for only one child regardless of the presence of any other child during any or all of that period.

Mobility Instruction

In 1968 the California Legislature amended the Education Code to allow individual instruction in mobility for blind children. California

Administrative Code, Title 5, Education, Section 3610(b)(3), contains the following requirements relative to mobility instruction as provided for in Education Code Section 18102.9(1)(e):

- A) The pupil is blind.
- B) A person holding a credential authorizing services as a mobility instructor gives the instruction.
- C) The number of blind pupils assigned to a mobility instructor at any given time does not exceed eight unless prior written approval has been given by the Superintendent of Public Instruction.
- D) The pupil has not previously during his public school enrollment received a total of 340 periods of individual instruction in mobility. (This maximum may be exceeded for a given pupil upon the prior written approval of the Superintendent of Public Instruction.)
- E) Each period of individual instruction in mobility is at least 45 minutes of pupil-instructor contact, exclusive of travel time, recordkeeping, and the like required of the mobility instructor.
- F) The number of periods of individual instruction provided a blind pupil is currently kept and is recorded on his permanent cumulative record.

Payment of Tuition

If appropriate special education facilities are not available through public schools within the district, the county, or the state in the case of a visually handicapped minor, the school district may pay to the parent or guardian of the minor toward the tuition for the minor enrolled in a public or private nonsectarian school offering needed services. (See Education Code sections 6871-6874.6.)

A report and claim for expenses shall be submitted at the time and in the manner prescribed by the Superintendent of Public Instruction. (See the California Administrative Code, Title 5, Education, Section 3120.) The attendance reported and the claim submitted shall be verified by the county superintendent of schools. Application forms and literature may be requested from the offices of the school district or the county superintendent of schools.

Residential School

At present California has one state residential school for the blind, the California School for the Blind, 3001 Derby Street, Berkeley, California 94705. This school is administered by the State Department of Education, Division of Special Education, and is an important part of the public school system of California. All costs of attending the school, except costs of transportation, clothing, extraordinary medical care, and incidentals, are met by the state. If parents cannot meet expenses that are not paid by the state, such

expenses can, under state law, be paid by the county of residence on presentation of the proper application by the parent or guardian.²

The California School for the Blind supplements services offered to the blind by school districts. If a blind child lives in or near a school district that has an established public school program for the visually handicapped, his parents are requested first to seek admission of the child in that program. If a public school program is not accessible, or if the available program does not meet the child's needs, his parents may apply to enroll the child in the residential school by contacting the superintendent of the residential school *through the local school* so that the school district of residence can compute its financial responsibility for the child's education. (See Education Code Section 25851.1.)

In recent years the California School for the Blind has maintained an Evaluation and Placement Committee to review periodically the applications made for enrollment in the school and to discuss plans for students returning to the public schools. The committee will consider the application for enrollment of any child who is legally a resident of California and whose vision is so limited that his special learning needs cannot be met by services in his community.

The committee is composed of the superintendent of the residential school, selected members of the school staff, the state consultant in education of the visually handicapped who serves in the geographic area in which the child resides, and representatives from the applicant's school district of residence or the office of the county superintendent of schools.

The California School for the Blind provides a program from kindergarten through the ninth grade for resident students and for a few day students who live nearby. Students in grades ten through twelve residing at the school five or more days a week may, with the approval of the Berkeley Unified School District, attend the local high schools. (See Education Code Section 6805.) A supervised study period, with reader service available for each high school student, is provided each weekday evening at the residential school.

The California School for the Blind also has a program for children who are both deaf and blind. This program became possible under the provisions of legislation enacted in 1943. (For additional information the reader should contact the superintendent of the residential school.)

²See *State Services for the Blind in California* (Revised edition). Sacramento: Coordinating Council on State Programs for the Blind, 1968.

Establishment and Operation of Programs

Factors that need to be considered in establishing and operating a program for the visually handicapped include (1) legal authority for establishing a program; (2) legal provisions for financing a program; (3) evaluation and placement procedures; (4) guidance and counseling services; and (5) orientation of all persons involved in the program.

Legal Authority for Establishing Program

The governing boards of school districts must provide for the education of blind and partially seeing students, as included in the broad definition of "physically handicapped minor." (See Education Code sections 6801, 6802, and 6805.) Often, one school district may not have a sufficient number of visually handicapped students to warrant the establishment of a special program. Any school district not maintaining facilities for the education of visually handicapped minors is required to "enter into a contract with a school district in the same county, or a county superintendent of schools maintaining such facilities" (Education Code Section 6806). If there is no such district in the same county, the contract is to be entered into "with a school district in any other county maintaining such facilities" (Education Code Section 6806).

In sparsely populated areas the office of the county superintendent of schools shall establish and maintain programs for blind and partially seeing students residing in districts of less than 8,000 average daily attendance when such districts have not provided or entered into a contract with other districts to provide such programs. (See Education Code sections 894 and 895.8.)

Visually handicapped minors are subject to the compulsory school attendance law beginning at the age of six. (See Education Code Section 12101.)

The Education Code states that "physically handicapped minors may be admitted at the age of three years to special schools or classes

established for such minors” (Section 6809) and that blind children “between the ages of eighteen months and three years may be enrolled in experimental programs conducted by a school district or a county superintendent of schools” (Section 6812.5).

Legal Provisions for Financing Program

The cost of educating blind and partially seeing children exceeds the cost of educating children without such handicaps since the enrollment for each program is small and the services of a special teacher are required, together with special supplies and equipment, and, often, special transportation. Education Code Section 18102 provides that school districts and county superintendents of schools shall be given an allowance of \$17,260 minus the appropriate foundation funds for each special day class maintained for blind and partially seeing children. Special day classes include integrated programs of instruction as specified in Education Code Section 18101.6.

For districts and county schools providing special services and equipment for blind and partially seeing students in regular day classes, an allowance of \$1,018 per student in average daily attendance is made. (See Education Code Section 18102.9 (1)(g).)

Districts and counties enrolling visually handicapped minors in remedial instruction other than physical education receive an allowance of \$2,000 per student in average daily attendance. (See Education Code Section 18102.9 (1)(d).) For districts and counties enrolling visually handicapped minors in remedial physical education, an allowance of \$775 per student in average daily attendance is made. (See Education Code Section 18102.9 (1)(c).) Districts and counties enrolling visually handicapped minors in individual instruction receive an allowance of \$1,300 per student in average daily attendance. (See Education Code Section 18102.9 (1)(f).) An allowance of \$910 per unit of average daily attendance of blind students is made when mobility instruction, reader service, books, supplies, equipment, or supplemental instruction in vocational education is provided by school districts or offices of county superintendents of schools. (See Education Code Section 18102.9 (1)(e).)

Financial provisions for the education of physically handicapped minors in public or private nonsectarian schools, institutions, and agencies are specified in Education Code sections 6870-6874.6.

In addition to all other amounts allowed to a school district or a county superintendent of schools, an amount not to exceed \$389 per unit of average daily attendance may be allowed for the cost of

transporting blind or partially seeing students to special programs. (See Education Code Section 18060 and 18062.) As stated in Education Code Section 18060.2, "blind" includes the partially seeing, and "special day class" includes the integrated program.

Form J-22-P1, "First Period Report for Special Programs," and Form J-22-P2, "Second Period Report for Special Programs," are used by the offices of county superintendents of schools and by school districts to report attendance data for current funding of the operation of special programs, including transportation. These forms may be secured from the office of the county superintendent of schools. Districts maintaining special programs fill in the forms and return them to the office of the county superintendent for approval. The office of the county superintendent forwards the forms to the Bureau of School Apportionments and Reports of the State Department of Education in Sacramento. The latest edition of *Attendance Accounting in California Public Schools* is helpful in compiling the information for forms J-22-P1 and P2.¹

Evaluation and Placement

Visually handicapped students enter school from different home and school backgrounds. In order to provide the students with the educational program best suited to their abilities and needs, it is essential that careful evaluation procedures be instituted by school districts offering programs for visually handicapped students.

Many school districts have established evaluation and placement committees to evaluate students entering the special program for the first time and to reevaluate periodically the students already enrolled in the program.

The evaluation and placement committee is usually composed of the director of special education, a school psychologist, the principal of the school in which the student is enrolled or is to be enrolled, the teacher of the visually handicapped who will be working with the student, the classroom teacher or the counselor, and the nurse who serves the school where the program is housed. When the student resides in a district other than the one operating the program, a representative of the district of residence should be included on the committee.

Before the evaluation and placement committee approves the enrollment of a student, certain procedures are followed by its various members. These procedures are described as follows:

¹See *Attendance Accounting in California Public Schools* (1967 edition). Compiled by Jack T. Erikson. School Business Administration Publication No. 5. Sacramento: California State Department of Education, 1967.

1. The program director or the school psychologist interviews the student and his parents to (a) arrange to obtain pertinent records of any previous school experiences; (b) ascertain the extent to which the child has learned to care for his own needs; and (c) identify any home problems.

2. The school psychologist tests the student individually, if necessary, and reviews reports from preschool counselors, social workers, and other schools; thus, he gathers pertinent data on the child's learning abilities. The following guidelines for the psychological evaluation of visually handicapped children have been suggested by a school psychologist:

... General level of functioning.

- a) Descriptive — give teacher a clear-cut picture, not I.Q.
- b) Relate chronological age at which he responds to development levels in language (communicates needs); in motor skills; in perception; in comprehension; in reasoning; in learning ability.
- c) Other points to be considered:
Sensitivity to what is going on around him; how will he relate to people? how interested is he in toys? resourcefulness in using toys (spontaneous); methods of discrimination, exploration, and localization; attention span; reactions to routine.

... Behavioral pattern.

- a) Adjustive:
Compensatory reactions; denial reactions; defensive reactions; withdrawal reactions.
- b) Non-adjustive:
Self-centeredness; non-social; lack of competitive drives; emotional stability; nervousness; worry, anxiety.

... Emotional status.

- a) Ability to tolerate frustration.
- b) Is he able to postpone satisfactions or must he have immediate gratification of his wishes?
- c) How does he see himself in relation to other children?
- d) Is he confident of his abilities or does he fear competitive situations?
- e) How independent is he in exploring and dealing with his environment?

... Social adjustment.

- a) How does he get along with other children?
- b) Can he become a part of a group or does he continually demand attention?
- c) Is he able to postpone his immediate wants for a group goal?
- d) What are his feelings toward adults?

... Recommendations for working with the child in a day-school educational program, as developed in the staffing.²

²Lucy M. Hepfinger, "Psychological Evaluation of Young Blind Children," *The New Outlook for the Blind*, LVI (November, 1962), 315.

The following devices may also be helpful to the psychologist evaluating visually handicapped children:

- Interim Hayes-Binet Intelligence Test for the Blind, 1942
- Wechsler Intelligence Scale for Children – Verbal Scale
- Merrill-Palmer Scale of Mental Tests
- Maxfield-Buchholz Scale of Social Competence for Use With Blind Pre-school Children
- Vineland Social Maturity Scale
- Observation room
- Parent interview³

3. The nurse obtains from the family's eye specialist a complete written report on the child's eye condition, including diagnosis, visual acuity, prognosis, and recommendations. The nurse may also find it advisable to obtain records of, or arrange for, a complete physical examination of the child. The nurse should also obtain from the parents a medical history of the child. Eye reports on visually handicapped children occasionally contain recommendations for placement in specific programs; for example, a program for the blind or a program for the partially seeing. Although such recommendations may be helpful, placement of a visually handicapped child is an educational decision that should be made only by the evaluation and placement committee after all factors have been considered.⁴

4. The principal may also wish to interview the parents and child and to invite the parents to visit the school.

5. The teacher of visually handicapped may also wish to meet the parents and child.

After these procedures have been carried out, the evaluation and placement committee meets and discusses the various reports, interviews, and observations. If the child is eligible for the program and the enrollment is such that he can be admitted, the parents must be notified in writing. (See Education Code sections 10521-10522.) If the child is to be enrolled from another school district, that district should also be notified in writing.

If the child has special problems, such as additional mental or physical handicaps, a more thorough evaluation must be completed. Other personnel, such as principals of schools housing programs for the mentally retarded, orthopedically handicapped, deaf, or hard of hearing, may be involved. Whenever possible, planning should be

³*Ibid.*, 312.

⁴See Katie N. Sibert, "The Use of Eye Reports by an Educator," *The International Journal for the Education of the Blind*, XV (March, 1966), 78-81.

flexible. If it appears, after a conference of the evaluation and placement committee, that the child's needs would best be met in a program for the mentally retarded or in a program for another type of physically handicapped child, arrangements should be made so that the personnel of the program in which the child is placed will have at least consultative help and suitable materials from the program for the visually handicapped. It is often helpful if a special teacher of the visually handicapped can visit and work with visually handicapped children in other special programs on a weekly or daily schedule.

Trial placements may be necessary to determine the child's needs. In such cases the parents and the school district of residence should be notified in writing. Children who are immature or who have special physical or emotional problems may need placement on the basis of a limited day's attendance for certain periods of time. Parents of children who cannot benefit from the school program should be encouraged to seek help from appropriate agencies, such as mental health clinics and family service agencies.

Blind children identified as mentally retarded (pursuant to Education Code sections 6902 and 6903) are not precluded from placement in classes for sighted children of similar mental ability. (See the California Administrative Code, Title 5, Education, Section 3441.) In making such placement, however, the evaluation and placement committee should consider the availability of a teacher's aide for the class and a reduction in the maximum class size set forth for classes for the trainable mentally retarded.

Guidance and Counseling

Visually handicapped students and their parents should have available to them the same guidance and counseling services that are available to all students in the school district. The special teacher can be of assistance to other staff members in interpreting some of the individual needs or problems of visually handicapped children, but he should not be expected to carry full responsibility for guidance and counseling.

The special teacher should keep the principal, the regular teachers, the director of special education, and other staff members informed regarding contacts and conferences with parents of visually handicapped students. It is often desirable for one or more of these persons to sit in with the special teacher when parents come to the school for a conference. If the school in which the visually handicapped pupil is enrolled holds regular parent-teacher conferences at the time report cards are issued, the special teacher and

the regular teacher should confer together with the parents of visually handicapped children.

In junior and senior high schools, visually handicapped students should be assigned to counselors in the same manner as are all the other students. It is helpful to the visually handicapped student and the counselor when the same counselor can work with the same student throughout the student's attendance at the school. The Education Code states that special programs for the visually handicapped shall provide "individual counseling and guidance in social and vocational matters . . . as part of the instructional program . . ." (Education Code 6818). The Code also urges the director of special education, the secondary school counselors, and the special teacher of the visually handicapped to work together with the State Department of Rehabilitation and other agencies to initiate vocational planning for visually handicapped students in high schools (Education Code Section 6933).

All school personnel working with visually handicapped students and their parents should be aware of the psychological impact of physical and mental handicaps. Principals, psychologists, counselors, and others should read some background material in order to counsel more effectively the visually handicapped students and their parents. Books and articles by such writers as Lowenfeld and Abel have been helpful to educators.⁵

Parents of visually handicapped children should be encouraged to visit the school occasionally to observe their children in the resource room and in the regular classrooms. These parents should be informed of, and encouraged to attend, all parent meetings, such as "back-to-school night" and PTA meetings. Extra encouragement to attend such meetings is very important since many visually handicapped children attend schools outside their own neighborhoods.

Periodically, a school district operating a program for visually handicapped children should invite the parents to a meeting concerned with the special needs of those students. Such a meeting could provide an opportunity for the parents to meet and talk with a representative of the State Department of Rehabilitation regarding vocational opportunities or mobility training for blind and partially seeing students. Also, parents often need and appreciate assistance in promoting the social development of their handicapped children. By means of occasional group meetings, the parents can be helped to

⁵See Berthold Lowenfeld, *Our Blind Children: Growing and Learning with Them*. Springfield, Ill.: Charles C. Thomas, Publisher, 1956. See also Georgie Lee Abel, "The Blind Adolescent and His Needs," *Exceptional Children*, XXVII (February, 1961), 309-34.

share useful information and be encouraged to enroll their children in organizations such as the scouts, the YMCA, and the YWCA.

Orientation Program

When it has been decided that a program for visually handicapped minors will be established, the district superintendent and his staff may find it helpful to visit several types of such programs in neighboring school districts or counties. Such visits will be of assistance in deciding what kind of program can best meet the needs of the district's students.

The principals, counselors, and teachers of the schools in which visually handicapped students will be enrolled may find it helpful to visit a program similar to the one in which they will be involved. The director of special education may want to invite specialists in the education of the visually handicapped to talk with school staff members. Films and literature are also useful in orienting the school staff. (See the selected references in this publication for recommended films and printed materials.)

The superintendent of each district offering a special program for the visually handicapped should provide opportunities for developing an understanding of the nature and goals of the special program among all the professional people of the community. This objective can often be attained by arranging for the director of special education or the teacher of the visually handicapped to make presentations to such groups as the board of education; principals and supervisors; the faculty; parent-teacher associations; service clubs; the County Ophthalmological Society; and the County Optometric Society.

For Parents and Children

School personnel will want to provide opportunities for parents, children, and teachers to become acquainted, especially if the program is new to the district or the school or if the children are being enrolled for the first time. It is often helpful for parents to bring new students who are visually handicapped to the school before the opening of school in the fall. At this time they can visit the regular classrooms and the resource room and meet the classroom teachers and the special teacher. The students may also learn the locations of the cafeteria, restrooms, play areas, and the like.

For Classroom Teachers

The following guidelines are suggested for teachers of the visually handicapped and classroom teachers in districts that operate integrated programs:

Early conferences. Shortly before or soon after the beginning of the fall semester, it is essential that the special teacher of the visually handicapped hold a conference concerning each visually handicapped student. At the elementary level the special teacher would confer with the pupil's classroom teacher. At the secondary level the teacher would include in one meeting all the teachers who have the student in their classes. In such a meeting the special teacher can provide pertinent information on the individual student's abilities and needs. He can also provide an opportunity for the other teachers to ask questions since they may not have had a blind or partially seeing student in their classes.

As the classroom teachers become acquainted with the special teacher, they will feel more comfortable in making informal contacts to discuss any problems that may arise. The special teacher who is friendly, who is interested in the classroom teachers' viewpoints, and who is a good listener can contribute much toward the success of educational programs for visually handicapped students.

Program plans. The planning function is very important in the instructional program for visually handicapped students. The special teacher should obtain from the classroom teacher an outline of the year's work so that he may anticipate the teaching methods and materials that will be necessary. Classroom teachers should give worksheets, tests, and other materials to the special teacher in sufficient time, prior to their use in the regular class, for the teacher of visually handicapped to arrange for the transcription of these materials into braille, large print, or recorded form. As the special teacher works with visually handicapped students of different grade levels and with a number of classroom teachers, the problems involved in providing materials in appropriate form at the right time can become very complex unless careful planning has been done.

Conferences should be conducted regularly throughout the school year to ensure a well-organized instructional program for each visually handicapped student. In the conferences the special teacher and the regular teacher can decide whether certain kinds of lessons can be presented more effectively to the visually handicapped student by the regular teacher or by the special teacher, and they can evaluate the student's progress.

Personal contact. The manner in which the classroom teacher works with the visually handicapped student in the regular class determines to a great extent how the other students react to the handicapped child. The teacher should get to know the visually handicapped student as an individual; if the teacher's attitude is one

of matter-of-fact acceptance, the other students will follow his example.

It is important to treat the visually handicapped student as an individual. Classroom teachers sometimes overreact to the handicapped pupil. For example, a teacher may express the belief that a visually handicapped student's accomplishment of a routine task is "amazing," or a poorly done assignment is "good – for a blind child." The visually handicapped student will gain little of value from his education if he is excused from meeting the standards of achievement and behavior expected of his classmates.

The special teacher should encourage the classroom teacher to require the visually handicapped student to do as much as he can for himself: to care for his own materials, to gather his own clothing and books, and to carry them about.

Special needs and problems. The special teacher should interpret the particular needs and problems of blind and partially seeing students for the regular classroom teacher. For example, since these students depend more on hearing than on vision, they should be seated at the front of the room or as close as possible to the teacher as he presents the lesson or demonstration.

The special teacher should explain to the classroom teacher the difference between near and far vision in partially seeing students. Some partially seeing students can read ordinary print if they hold the book a few inches from their eyes. This fact may lead the classroom teacher to believe that when they are seated at their desks, they should be able to read what is on the chalkboard. Copying material from chalkboards, books, or worksheets is obviously impossible for blind students, and it is very difficult for partially seeing students. Instead, teachers can have the material prepared ahead of time in braille, large print, or recorded form, or the material can be read to the visually handicapped student by the teacher or another student in the regular class.

The classroom teacher should not assume that if a partially seeing student wears glasses, the student can see normally. His corrected visual acuity and the visual acuity of the partially seeing student whose vision is not helped by glasses and who, therefore, does not wear them should be made known to the teacher. Occasionally, a partially seeing student has to hold his head at an unusual angle in order to read because he sees from only a certain area of the eye. Any characteristic such as this should be explained to the classroom teacher.

Some classroom teachers are fearful that the student with poor vision will "strain" his eyes by using them. The special teacher should explain that use does not damage vision.⁶

Children want to be like their peers, and visually handicapped students are no exception. Therefore, they may not inform the regular classroom teacher when they cannot see or cannot perform a particular task. Their reticence can lead to misunderstandings unless the teacher has been advised of the prevalence of this attitude by the special teacher. Visually handicapped students may also become self-conscious when called upon to read aloud in class. Counseling by the special teacher and an understanding attitude on the part of the classroom teacher can alleviate such situations. If the special teacher and the classroom teacher can devise ways for self-conscious visually handicapped students to demonstrate in the context of routine activities any particular abilities or skills they have, these students will come to feel more secure in the classroom and less uncomfortable about situations where their vision defects are more obvious.

⁶See Joseph J. Frank, "As Seen by the Ophthalmologist," *The New Outlook for the Blind*, LV (March, 1961), 99-101.

CHAPTER V

Guidelines for Personnel

The services of all professional personnel in the school district should be utilized as needed in the program for the visually handicapped. The superintendent and his staff should have a complete understanding of the philosophy, goals, and operation of the program.

The following sections are intended as guidelines for school district personnel involved in the operation of a program for the visually handicapped.

Administrative and Supervisory Personnel

Superintendent

The superintendent is responsible for administering the program for the visually handicapped. He is expected to:

1. Know about the various types of educational programs for the visually handicapped and the educational implications of each
2. Know the laws and regulations relating to education of physically handicapped minors
3. Be familiar with methods of recording and reporting attendance and transportation expenses in claiming state allowances for the excess costs of educating visually handicapped students
4. Develop the general policies and procedures essential for a well-integrated and coordinated program
5. Prepare a suitable budget for staff, physical facilities, and special equipment and materials
6. Provide suitable related services, such as psychological, health, and guidance services
7. Select the school or schools to be involved in the special program, taking into consideration (a) the present and projected numbers and grade levels of visually handicapped students; (b) the regular class sizes; (c) the transportation of students to the school in which the resource room or self-contained class is located, and

transportation of the itinerant teacher; and (d) the location of the resource room, the office and storage space for the itinerant teacher, and the rooms for self-contained classes

8. Report periodically the progress and needs of the special program to the district board of education, the district staff, and the community

Director of Special Education

The director of special education works with administrators, teachers, health and guidance personnel, curriculum consultants, and other school district personnel in establishing and operating the program for visually handicapped. The director is expected to:

1. Be familiar with the educational implications of various types of programs for the visually handicapped

2. Understand the philosophy and goals of the program for visually handicapped in his district and interpret the program to administrative and school personnel and to the community

3. Coordinate instructional, pupil personnel, and health services within the school district as they relate to the program for the visually handicapped

4. Know the laws and regulations relating to education of physically handicapped minors

5. Be familiar with methods of recording and reporting attendance and transportation expenses in claiming state allowances for the excess costs of educating visually handicapped minors

6. Coordinate the services of ancillary personnel, such as mobility instructors, employed transcribers, and readers for blind students

7. Make use of appropriate services from the office of the county superintendent of schools, the State Department of Education, rehabilitation agencies, and other groups, such as volunteer transcribers and counselors for parents of preschool blind children

8. Establish and preside over the evaluation and placement committee

9. Be available as needed to confer with and assist parents of visually handicapped children

10. Consult with principals and special teachers regarding equipment and materials needed for the instruction of visually handicapped children and convey these needs to the superintendent and the board of education

11. Attend professional meetings (in and out of the district) concerned with education and rehabilitation of visually handicapped students and encourage principals and teachers to do the same

Principal

The principal should have a complete understanding of the philosophy and goals of the program for visually handicapped established in his district. He is expected to:

1. Interpret the special program to the school staff and immediate community
2. Be familiar with the best educational practices for visually handicapped children and supervise the instructional program for the visually handicapped, both in the resource room or self-contained classroom and in the regular classrooms
3. Work to develop a well-balanced and wholesome school environment in which visually handicapped children are treated as much as possible like seeing children, while at the same time their unique needs are met by a good educational program
4. Provide support and guidance to the special teachers, classroom teachers, and counselors as they work with visually handicapped children
5. Consult on a regular basis with the superintendent, director of special education, curriculum consultants, and other administrators regarding the program in his school
6. Be available to work with other school district personnel, such as psychologists and nurses, regarding individual visually handicapped children
7. Serve on the evaluation and placement committee as needed
8. Confer as needed with parents of visually handicapped children
9. Coordinate the services of ancillary personnel, such as readers for blind students and transcribers
10. Attend professional meetings (in and out of the district) concerned with the education and rehabilitation of visually handicapped students

Teaching Personnel

Teacher of the Visually Handicapped

The teacher of the visually handicapped must be specially prepared and must be specially credentialed for his work. Under the guidance and supervision of the principal and the director of special education, the teacher of the visually handicapped is expected to:

1. Provide special instruction to visually handicapped students
2. Work regularly in integrated programs with classroom teachers in planning the instructional program for individual visually handicapped students

3. Work with other school district personnel, such as counselors and nurses, regarding individual visually handicapped students

4. Have a complete understanding of the philosophy and goals of the program for visually handicapped in his school district and keep abreast of new developments in the education of visually handicapped children, such as orientation and mobility programs

5. Have a good understanding of the educational philosophy and curriculum of the school district in which he works and keep abreast of new developments in general education, such as programmed instruction and educational television, and of the implications of such developments for visually handicapped students

6. Confer periodically with parents of visually handicapped children

7. Serve on the evaluation and placement committee as needed

8. Understand the psychological and social implications of visual handicaps and work with professional associates, parents, and children to increase understanding and acceptance of visually handicapped children

9. Work with ancillary groups and individuals, such as transcribers, readers for blind students, counselors for preschool children, and mobility instructors

10. Attend professional meetings (in and out of the district) concerned with the education and rehabilitation of visually handicapped students

Classroom Teacher

Under the guidance and supervision of the principal, the regular classroom teacher is expected to:

1. Have primary responsibility in integrated programs for the instruction of the visually handicapped student

2. Work regularly with the special teacher regarding instructional needs and planning for visually handicapped students

3. Confer as needed with other district personnel, such as psychologists and counselors, regarding visually handicapped students

4. Confer periodically with the parents of the visually handicapped students in his class

5. Serve on or advise the evaluation and placement committee as needed

Teacher of the Visually Handicapped in Mobility

The teacher of the visually handicapped in mobility must be specially prepared and must be specially credentialed for his work.

The mobility instructor works under the supervision of the director of special education and is expected to:

1. Provide individual instruction in orientation and mobility skills to visually handicapped students
2. Confer periodically with the special teacher of the visually handicapped and other school personnel, such as classroom teachers and counselors, regarding the individual progress of each student receiving mobility instruction
3. Act as consultant to school personnel and parents regarding the development of mobility skills in visually handicapped students not currently receiving individual mobility instruction

Guidance Personnel

Guidance personnel usually consist of one or more school psychologists on the elementary and secondary levels and school counselors from junior high school through junior college.

School Psychologist

School psychologists having the assignment of evaluating blind and partially seeing children should be knowledgeable regarding the intelligence and achievement tests appropriate for this purpose. (See Chapter IV, "Evaluation and Placement," and Selected References, "Psychological and Educational Evaluation.")

The school psychologist works with the director of special education, principals, counselors, and teachers to provide services which will meet the individual abilities and needs of visually handicapped students. He is expected to:

1. Be aware of the social and emotional impact of physical and mental handicaps and work with school personnel and parents to promote understanding and acceptance of visually handicapped students
2. Evaluate individual visually handicapped students for admission to special programs and also periodically throughout each student's attendance in the special program
3. Interpret the results of psychological and achievement tests of visually handicapped students to special teachers and regular class teachers and recommend appropriate instructional strategies and techniques to be used
4. Counsel with parents of visually handicapped students
5. Serve on the evaluation and placement committee
6. Make use of various public and private agencies available or refer parents of visually handicapped children to them as necessary

(Such agencies include those providing services to preschool children, family service agencies, the Department of Rehabilitation, and the like.)

School Counselor

Counselors assigned to work with visually handicapped students should be selected by the principal on the basis of their interest in handicapped individuals. The counselors should be knowledgeable regarding educational and vocational programs for the visually handicapped and the special guidance needs of these students. (See Selected References, "Guidance and Counseling.")

The school counselor counsels with visually handicapped students of junior high school age or older and their parents. He is expected to:

1. Work with the principal, the psychologist, the teacher of the visually handicapped, and classroom teachers in selecting appropriate courses for visually handicapped students
2. Arrange for individual testing of visually handicapped students
3. Be aware of, and make use of, appropriate agencies in or out of the school district if visually handicapped students or their parents have need for special services
4. Serve on the evaluation and placement committee as needed

School Nurse

The school nurse conducts vision screening procedures and notifies parents of students having vision problems. The nurse is also expected to:

1. Obtain from eye specialists vision reports that are used primarily for evaluation of students' needs for special educational provisions and also for the annual registration of the visually handicapped with the State Department of Education
2. Confer periodically with parents to be sure that visually handicapped students are receiving adequate care
3. Act as liaison with eye specialists and school personnel to ensure that recommendations for visually handicapped students are carried out
4. Serve on the evaluation and placement committee
5. Make use of resource materials, such as those available from public health agencies and the National Society for the Prevention of Blindness, in promoting eye health and safety practices among the school staff and student body

Noncertificated Personnel

Transcriber-Clerk

The transcriber-clerk works under the general supervision of the director of special education, and by direction of the special teacher of visually handicapped, she is expected to:

1. Transcribe or copy instructional materials, such as worksheets, tests, and textbooks, into the required media: braille, large type, or tape recordings
2. Prepare in enlarged or tangible form materials adapted for use by visually handicapped students (Adapted materials may include diagrams, charts, maps, and models.)
3. Act as liaison with volunteer transcribers working on long-range assignments
4. Catalog and index all special materials in braille, large type, and recorded form
5. Correspond with volunteer and commercial agencies in obtaining special materials for visually handicapped students
6. Keep abreast of new developments in transcribing for the visually handicapped, especially in the Nemeth Code of braille mathematics, foreign language braille codes, and the code of braille textbook format, through correspondence with state and national specialists and by attendance at meetings of transcribers and educators of the visually handicapped

The transcriber-clerk employed by the school district to prepare materials in braille should possess a Library of Congress Certificate of Proficiency in Braille. The transcriber-clerk employed to prepare materials in large print should be competent in the use of the typewriter as determined by the district personnel office.

Reader for Blind Students

The reader for blind students works under the general supervision of the director of special education and the principal and under the direction of the special teacher of visually handicapped. He is expected to:

1. Read directly to the blind student
2. Read instructional or supplementary materials such as textbooks, reference books, and tests or examinations and assist the student with maps, charts, graphs, and diagrams

The reader for blind students may be a student selected from an honor society or service group in the high school, a student from a nearby college, or an adult in the community. The reader should be

skilled in reading aloud; for example, he should have a well-modulated and pleasant voice and good enunciation.

Teacher Recruitment

Certain special qualities needed in teachers of visually handicapped children are as follows:

... They should be educators in every sense of the word. They should possess those qualifications which make them sought after as excellent teachers of sighted children. They should possess a real conviction regarding the rights of individuals of small minority groups and should have the ability to interpret that conviction courageously and constructively in their adaptation of an educational program. . . .¹

Methods of Recruitment

Recruiting qualified teachers of the visually handicapped is a challenge to administrators. One way of recruiting such teachers is to select from the regular teaching staff a teacher who has already proved his worth as a successful teacher and is willing to become a qualified teacher of the visually handicapped. Another way is to encourage, through counseling in the high schools and the colleges, only those students best qualified to serve as teachers of the visually handicapped to select special training for this type of work.

Private Assistance

Various service clubs and organizations have offered valuable assistance in recruitment by providing scholarships, traineeships, or loans for students who want to secure a credential in the area of the visually handicapped. Among the groups providing this very fine service are the California Congress of Parents and Teachers, Inc., the Delta Gamma Foundation, the American Foundation for the Blind, the National Federation for the Blind, and the Crown Zellerbach Foundation. Often, teachers who receive a credential in the area of the orthopedic and other health impaired become interested in the area of the visually handicapped. The California Association of the Benevolent and Protective Order of Elks has provided several scholarships to teachers desiring the second credential. Information concerning the assistance they offer is available directly from any of these organizations.

State Assistance

In 1963, for the first time in California, \$60,000 was appropriated by the Legislature to be allotted to the offices of the county

¹The Pine Brook Report, *op. cit.*, p. 38.

superintendents of schools for grants to teachers of the physically handicapped and the mentally retarded for the purpose of securing a "clear" credential. In 1966 the appropriation was increased to \$150,000. Certain specified funds were distributed in equal amounts to all counties, and the remaining amount was apportioned to offices of county superintendents according to the school population in the county. Information concerning these funds is available from the office of the county superintendent of schools in the county where the applicant resides. (See also Education Code sections 6875-6878.)

Federal Assistance

In accordance with Public Law 85-926 (as amended), federal funds are allotted to the states on the basis of the population of each state. Fellowships are available from the California State Department of Education for the full-time academic year and are renewable up to four years. Administrators of special education programs are encouraged to inquire about the fellowships available to them beyond the master's degree. The same types of fellowships have been allotted to colleges and universities.

Under Title II of the National Defense Education Act, loans may be provided to students in institutions of higher education if they are interested in teaching visually handicapped children. These loans are repayable over a ten-year period after graduation, and 50 percent of each loan may be forgiven at the rate of 10 percent per year for each year taught. (Nurses as well as teachers are eligible for these loans.)

CHAPTER VI

Curriculum for the Visually Handicapped

The curriculum for visually handicapped students is basically that of the school district in which such students are enrolled. Thus, visually handicapped students study the various academic subjects, the arts, physical education, and the vocational subjects. However, visually handicapped students have needs which require special attention in instructional planning. Lowenfeld has described three basic limitations imposed on the individual by blindness. Visually handicapped persons are limited (1) in the range and variety of experiences; (2) in the ability to get about; and (3) in the control of the environment and the self in relation to it.¹ School personnel should consider these limitations relative to the educational problems of partially seeing students, as well as blind students, since the early development of many partially seeing children varies considerably as to the onset of visual disability, medical care received, parental attitudes, and so forth.

Special Educational Objectives

The aforementioned limitations have major implications for special educational programs for the visually handicapped. These programs must include carefully planned instructional activities for visually handicapped students to develop the following:

- Realistic concepts
- Orientation and mobility skills
- Social and daily living skills
- Communication skills
- Prevocational abilities
- Ability to use special resources

¹See Berthold Lowenfeld, "Psychological Foundation of Special Methods in Teaching Blind Children," in *Blindness: Modern Approaches to the Unseen Environment*. Edited by Paul A. Zahl. Princeton, N.J.: Princeton University Press, 1950, p. 90.

Realistic Concepts

Basic to the education of all children is the development of realistic concepts of the world about them – concepts derived from a multitude of direct experiences. Most children enter kindergarten with a rich background of experiences; but visually handicapped children, even those coming from homes in higher socioeconomic areas, are limited in the range and variety of their experiences. Their needs were well expressed 30 years ago by British educators of the blind:

The young seeing child is familiar with a multitude of characters and scenes of domestic and social life; he knows the postman, the policeman, the bus driver; the contents of the kitchen and bedroom; the wares of the confectioner's, the greengrocer's and butcher's shops; the scenes and incidents of street-life or the farmyard and countryside; he knows the birds, the domestic animals, trees, bushes and flowers, and vaguely or definitely a thousand things besides. Every common noun that he uses, whether cloud or chimney or looking-glass, represents a host of experiences that he has discriminated and classified and summed up in the word. Experiences of such things as these, and of their observed relationships, are the very stuff of the child's mind, and on them the teacher draws daily for the purposes of his art. . . . The deepest and most fundamental needs of blind children are a rich and intimate experience of common things, and a direct acquaintance with the many characters that move across the scenes of daily life, and the activities in which these characters engage. For these, no verbal substitutes will serve; the children must learn to know persons and things in terms of their own sensory powers, and to meet the situations in which they occur on an independent footing. Without this direct contact with the world, all subsequent formalizations of knowledge may be riddled with errors and misunderstandings, and all evaluations of what is good and worthy in life may be shattered by encounter with reality. Only this first-hand experience will enable them to face with confidence the world that awaits them when they emerge from the shelter of the school.²

The implications of the foregoing statements for instructional planning are the following:

1. Teachers of the visually handicapped should provide direct, concrete experiences in the classroom. Blind and partially seeing children in kindergarten and primary grades, especially, should have many opportunities to examine and explore real objects, both animate and inanimate, and to discuss, compare, and classify these objects. Examples include live animals, common household objects and utensils, and common fruits and vegetables. Partially seeing

²*Education of the Blind: A Survey*. London: Edward Arnold and Co., 1936. Quoted in Lowenfeld, "Psychological Foundation," p. 102.

children as well as blind children should be encouraged to make use of their senses of touch and hearing through similar experiences.

2. Teachers of the visually handicapped should provide direct, concrete experiences through study trips. Blind and partially seeing children should be taken individually or in very small groups to places such as markets, farms, museums, and the like. If visually handicapped children are enrolled in regular classes that take study trips, the handicapped should participate in these trips as well; but study trips with regular classes will not be sufficient as learning experiences since visually handicapped children need more time than seeing children to explore the environment and to examine the objects found there.

Orientation and Mobility Skills

Whitstock defines orientation as "an effective awareness of and interaction by an individual with his physical, cultural, and social environment"; and he defines mobility as the "possession or use by an individual of formalized skills for his independent negotiation of the physical environment."³

In recent years educators and other professional persons who work with the visually handicapped have come to realize that the ability to move about independently, safely, and gracefully is extremely important for visually handicapped persons. As adults they should be able to travel independently to their places of work and to go to meet their friends on social occasions. Visually handicapped children should be able to move confidently about the school buildings and grounds and in their own homes and neighborhoods.

Independence is stifled when a blind or partially seeing child must always wait for someone to take him where he needs or wants to go. Excessive dependence on others can result in a poor self-concept, which can adversely affect his educational and vocational activities and his social relationships.

The ability of a visually handicapped child to move about independently is closely related to his development of meaningful concepts of the world around him. If he is not motivated to explore his environment, or if he is overprotected to the extent that he is afraid to move, he may come to depend entirely upon descriptions or interpretations by seeing persons.

Educational implications of the foregoing discussion are the following:

³Robert H. Whitstock, "Orientation and Mobility for Blind Children," *The New Outlook for the Blind*, LIV (March, 1960), 91.

1. Special teachers should work cooperatively with school personnel and parents to encourage as much independent mobility as possible for each visually handicapped student.

2. Special teachers should assist visually handicapped students in becoming aware of various aspects of the environment which are helpful in orientation.

3. Visually handicapped students should receive regular, systematic instruction in physical education, either in regular classes or in remedial physical education classes established under the provisions of the California Administrative Code, Title 5, Education, sections 3630-3633.

4. Whenever possible, through employment of mobility teachers or through cooperative agreements between school districts and the State Department of Rehabilitation, educators should provide competent mobility instruction for visually handicapped students. School districts or county superintendents of schools providing mobility instruction through either of the aforementioned methods must be certain that the mobility instructor meets credential requirements as set forth in the California Administrative Code, Title 5, Education, sections 6600-6601 or 6430-6431.

Social and Daily Living Skills

The goal of education for visually handicapped students is the same as that for all students: adequate preparation for a full life as participating citizens of the community. Handicapped students are better equipped to handle the many social and occupational situations they will encounter when they are able to conduct themselves with reasonable poise and assurance. Visually handicapped students need to know how to request, accept, or refuse help graciously; how to be neat and well groomed; and how to participate in and enjoy social and recreational activities.

Educational implications of the foregoing discussion are the following:

1. School personnel should encourage and expect good manners on the part of visually handicapped students.

2. Visually handicapped students should be given instruction and guidance in personal hygiene and good grooming. Considerable help can be given through health and physiology classes, homemaking classes, and individual and group counseling by teachers, nurses, and school counselors.⁴

⁴See Richard J. Thurrell, "Special Problems of Motivation in the Blind Student," *The International Journal for the Education of the Blind*, XVI (December, 1966), 45-48.

3. Teachers and counselors should encourage visually handicapped students to join and participate in school clubs, societies, and other activities. Teachers should encourage parents to have their visually handicapped children participate in local groups such as the Boy Scouts. Leaders of such groups should be invited to observe visually handicapped pupils at school so that the leaders will feel more secure in including these children in their programs.

Communication Skills

It is important that visually handicapped children become proficient in the communication skills of listening, reading, and writing.

Listening Skills

Learning how to listen is important for all students, but particularly for those who are visually handicapped. Students with poor vision who have to read by means of large print or with the aid of magnifiers and students who read braille do not develop the reading speed of readers of ordinary print.⁵ In addition, it is impossible to provide in large print or braille all the books needed by visually handicapped students in high school and college. Visually handicapped students in secondary schools must often use recorded books and the services of persons employed as readers.

Instructional implications of the foregoing statements are the following:

1. Teachers of the visually handicapped should begin to teach listening skills in the primary grades. Programmed instruction in the development of listening skills is available in recorded and printed form from several educational publishers.

2. Visually handicapped pupils in the upper elementary grades should be taught notetaking skills, using either braille or large-print typewriters as preparation for the work of junior and senior high schools.

3. At the secondary level, visually handicapped students should be provided with the services of a reader. This service should be coordinated by the special teacher, who should instruct and guide visually handicapped students in the most efficient use of readers. (See Education Code Section 18102.9(1)(e)).

Reading and Writing Skills

Children who are blind must be able to read braille, and children who are partially seeing must be able to read print. Both blind and

⁵See Carson Y. Nolan, "Reading and Listening in Learning by the Blind," *Exceptional Children*, XXIX (March, 1963), 313-16.

partially seeing children must be able to use auditory aids. Visually handicapped students need well-adapted equipment and materials in order to learn efficiently.

Instructional implications of the foregoing are the following:

1. Visually handicapped students should be given special instruction in reading. When blind students are ready to learn how to use braille, the special teacher should provide appropriate instruction, including instructions in the use of the Nemeth Code of braille mathematics and the music code. When partially seeing students are ready to read, the special teacher provides guidance in the use of optical aids, such as hand magnifiers and projection magnifiers. The special teacher will realize that not all partially seeing students can use optical aids. Reading materials in the form of braille and large-print books must be readily available. In integrated programs the supply of such materials must be varied so that blind and partially seeing students may participate in the reading instruction of the regular classroom.

2. Visually handicapped students should be given special instruction in writing. Blind pupils need instruction by the special teacher in the use of the braillewriter beginning in first grade, and the slate and stylus beginning in the intermediate grades. Skill in the use of the slate and stylus should be well developed by the time the children enter junior high school.

Partially seeing students need instruction by the special teacher in printing and handwriting. Blind high school students should be taught how to sign their names and should be given opportunities to develop handwriting skills if they show aptitude for this type of instruction. Blind students should be taught to recognize the shapes of print letters. This ability is helpful in later life; for example, in mobility instruction the blind person needs to know what is meant by a "Y-shaped" intersection.

3. Both blind and partially seeing students need instruction in typing from the special teacher. Blind students are able to use typewriters having regular type; partially seeing students may need to use typewriters having large type.

Visually handicapped students usually begin to learn typing skills in the upper elementary grades. At the high school level, blind and partially seeing students should be taught how to type composition and research papers, using the acceptable format. Often they will need to use a combination of techniques and equipment, such as the

typewriter, tape recorder, and braillewriter in writing and correcting drafts of papers.⁶

4. Special equipment must be readily available. This equipment includes braillewriters, slates and styli, and braille paper for blind students; and special pencils, pens, and heavily lined paper for partially seeing students. Some standard typewriters and portable typewriters are needed, the latter for use in regular classrooms.

Visually handicapped students should be instructed by the special teacher in the use of auditory aids, including tape recorders and phonographs.

5. Programs for the visually handicapped should provide well-adapted equipment and materials for students. Certain types of educational equipment and materials suitable for seeing students may also be suitable for visually handicapped students. Examples are the abacus and some maps. The special teacher should carefully evaluate such material in order to determine its usefulness for the visually handicapped.

Certain equipment and materials have been especially adapted for use by visually handicapped students. This material should also be carefully evaluated. For example, some maps adapted for visually handicapped students are very large, and the teacher will want to be sure that such maps can be transported between the resource room and the regular classroom if they are to be used in both rooms.

6. Very often the special teacher must adapt instructional materials for use by visually handicapped students or arrange for such adaptation. Certain principles should be adhered to in making adaptations:

- a. The special teacher should first analyze the purpose of the lesson and determine if it is to be taught in the resource room or in the regular classroom. These factors may determine whether adaptations are feasible or whether the lesson should be taught in a different way. Simplicity should be the keynote of all adaptations in order that the student does not become so involved in technicalities that he misses the point of the lesson.
- b. Excessive enlargement and excessive detail should be avoided. Blind students need maps, charts, and other material of a size and form that can be easily examined with the hands. Blind students will have difficulty relating the parts to the whole if the map or chart is too large or too crowded with symbols. Partially seeing students have to come very close to maps,

⁶See Raymond Paul and Pellegrino W. Goione, "Composition Through Typing: Instruction in Communication for the Blind," *Exceptional Children*. XXXV (October, 1968), 154-58.

charts, and pictures in order to see them, and, like blind students, they will have difficulty relating the parts to the whole if the material is too large or if too many symbols are crowded together. It is most important that adequate spacing and bold, clear print and colors be used in materials adapted for partially seeing students.

Prevocational Abilities

All of the educational activities of visually handicapped students can be considered as preparation for their future vocations; however, these students have special needs which should be met by the school program. Whether the visually handicapped student is preparing for college and a professional career or for work not requiring a degree, he should have the benefit of vocational guidance and counseling during his high school years. He should be made aware of the types of careers suitable for the visually handicapped and the requirements for the various areas of employment.

School districts are required to provide vocational counseling and guidance for physically handicapped pupils, and they may do this in cooperation with other districts or with the State Department of Rehabilitation. (See Education Code Section 6818.)

School districts which have established vocational education projects under the Vocational Education Act of 1968 (P.L. 90-576) should make use of the special funds for the handicapped available through Title I, Part B of the Act. Special vocational courses for the visually handicapped could be established, or instruction for visually handicapped students in regular vocational education courses could be improved through the use of these funds. Special funds for "... individual supplemental instruction in vocational arts, business arts, or homemaking for blind pupils..." are available according to the provisions of Education Code Section 18102.9(1)(e).

Ability to Use Special Resources

A number of specialized agencies can be helpful to young visually handicapped adults as they prepare to participate in the life of their communities. Included among these agencies are the State Department of Rehabilitation, the Library of Congress, and volunteer transcribing groups. Visually handicapped students and their parents are not always cognizant of special agencies and resources.

Educational implications of the foregoing are the following:

1. School personnel should provide opportunities for visually handicapped students and their parents to learn what services are available to them.

2. School personnel should invite representatives of various agencies to the schools to meetings with visually handicapped students and their parents. Representatives of special agencies should be asked to explain the nature and purpose of their organizations and the services available to visually handicapped persons.

General Curriculum

Visually handicapped students in integrated programs can study the general curriculum, with adaptations, as outlined in the following sections.

Reading

If reading instruction is to be effective, the special teacher must be knowledgeable regarding each visually handicapped student's individual abilities and needs. The teacher should make use of information obtained from eye specialists, school psychologists, the classroom teachers, and his own observations.

This information has many educational implications. For example, a number of students who are educationally blind can see colors or shapes, and this ability may be helpful to the teacher in working with such children. In addition, eye conditions frequently change, and students who have read by means of braille may be able to read print after their eye conditions have been corrected by surgical, medical, or optical means. The reverse may also be true, for students who have been able to read print may be losing vision at a rapid rate and should begin to use braille. Some students should wear their glasses at all times; others should wear glasses only for close work, such as reading, or only for distance vision as needed in activities, such as participating in playground games.

Although many partially seeing students read large print more efficiently than regular print, some partially seeing students can read regular print and should be allowed to do so. The teacher's determination of the size of print to be read depends upon the student's particular vision problem and, especially, his visual acuity at the near point, often about 4 to 6 inches. Many eye specialists now measure visual acuity at the near point and can provide this information on eye reports.

Many partially seeing students can read satisfactorily by holding printed material close to their eyes and, therefore, should not be required to hold books and papers at an arbitrary distance.⁷ They

⁷See Gerald Fonda, "Definition and Classification of Blindness with Respect to Ability to Use Residual Vision," *The New Outlook for the Blind*, LV (May, 1961), 169-72.

should be encouraged to use book racks or tilt-top desks in order to maintain good posture. Some partially seeing students can use optical aids for portions of their reading and should be guided in the proper use of these aids.

It is sometimes difficult to determine whether a child with very poor vision should be educated as blind or as partially seeing. In these cases the eye report should be used only as a general guideline to the child's functioning; to determine how the child uses his distance vision and his near, or reading, vision, the teacher must observe him carefully under a variety of conditions and as he uses various methods and materials.

One teacher-consultant has developed a set of criteria for determining the extent of useful vision in children having very low visual acuity.⁸ Other teachers may want to develop similar criteria.

In recent years educators have found that many students whose vision would classify them as legally blind are able to read large print or to read by means of magnification; and, in a few cases, some have been able to use regular print.⁹

In addition to current information on each student's visual problems, the special teacher should have current information on any specific reading problem. Recent studies indicate the usefulness of diagnostic tools, such as the Illinois Test of Psycholinguistic Abilities, Gray's Oral Reading Paragraphs, and the Monroe Diagnostic Reading Examination.¹⁰

Braille. To understand what is involved in teaching blind children to read, it is necessary to understand the nature of the braille system. The braille symbols, which represent letters and words, are composed of combinations of small raised dots in a six-dot cell arranged in two columns. The arrangements of these combinations of dots bear no resemblance to the shapes of the letters of the printed alphabet. (See "Standard English Braille, Grade II," in Appendix C.)

As it is presently used, braille is a kind of shorthand since not all of the words are spelled out. Certain letters, when preceded and

⁸See Katie N. Sibert, "The 'Legally Blind' Child with Useful Residual Vision," *The International Journal for the Education of the Blind*, XVI (December, 1966), 33-44.

⁹See *Blind Children: Degree of Vision, Mode of Reading*, OE-35026, Bulletin No. 24, 1961. Prepared by John Walker Jones. Washington, D.C.: U.S. Department of Health, Education, and Welfare, 1961.

¹⁰See Barbara D. Bateman, *Reading and Psycholinguistic Processes of Partially Seeing Children*, NEA Research Monograph No. 5, Series A, 1963. Washington, D.C.: Council for Exceptional Children, 1963. See also Merle B. Karnes and Janet P. Wollersheim, "An Intensive Differential Diagnosis of Partially Seeing Children to Determine the Implications of Education," *Exceptional Children*, XXX (September, 1963), 17-25.

followed by a space, represent whole words; for example, the letter *b* represents "but," *p* represents "people," and so forth. Also, certain braille symbols stand for *th*, *sh*, *ound*, *ence*, and the like. Shortening words in this fashion reduces the bulk of braille books and spares the reader some fatigue. Certain complexities become evident, however, in teaching blind pupils to read. The six-year-old child is hardly able to comprehend the rules of a system which some adults find difficult. Therefore, the best approach is to start with simple stories, phrases, and words taken from the child's oral vocabulary and to move gradually into the system itself.

Reading readiness. The special teacher and the regular teachers of kindergarten and first grade can help visually handicapped children to develop certain abilities as preparation for learning to read. These abilities are identified as follows:

1. *Auditory skills* -- Visually handicapped children should be able to understand what they hear and to follow oral directions. They should be able to recognize the main ideas of a story and be able to retell simple stories in their own words. They should learn to recognize common sounds and to discriminate among similar sounds; for example, the difference between the sounds of walking and running.

2. *Perceptual skills* -- As discussed previously in this chapter, teachers should provide many and varied concrete experiences for visually handicapped children. They should be taught to compare and classify simple objects according to various qualities, such as function, shape, size, and weight. Classroom materials, toys, and common household objects can be used for this purpose.

3. *Manual skills* -- A number of partially seeing children need help in developing eye-hand coordination, and blind children need to be able to use their hands well in order to read and write braille. Manual coordination can be developed through arts and crafts, physical education, activities such as learning to button and unbutton clothing, and playing with toys that can be taken apart and put together again. When visually handicapped children are ready for finer discrimination, the teacher can present various objects, such as small toys and fabrics, to be classified according to texture, shape, thickness, weight, and so forth.

The general principles for determining the reading readiness of partially seeing and blind children are the same as those for seeing children; however, the following should be considered in relation to the visually handicapped:

1. *Mental readiness* – Printed group tests, which consist mainly of pictures, are obviously unsuitable for determining the readiness of blind children for reading instruction. However, such tests may be useful for some partially seeing children if the teacher observes how much they can see in classroom materials, such as primary picture books. Partially seeing children who have had recent surgery or who have new glasses may have difficulty in focusing on small details. Partially seeing children may have difficulty interpreting a drawing of an object such as a house or a fire engine because they have seen such objects only indistinctly in the distance.

Reading readiness tests should be administered by the special teacher. Individual intelligence tests adapted for the visually handicapped may be helpful in determining reading readiness of blind and partially seeing children. The results of these tests are only part of a child's total test profile, however, and should be considered in relation to other aspects of his development.

2. *Physical readiness* – Visually handicapped children should be able to hear and speak according to expectations for seeing children of the same age and ability. Visually handicapped children should have the services of a speech therapist if necessary. Their general health should be good, and every effort should be made to see that their vision has been corrected as much as possible with glasses, surgery, or other treatment.

3. *Emotional readiness* – Visually handicapped children should be mature enough to work in a group of children under the direction of a teacher.

Reading program. In integrated programs at the primary level, and especially in first grade, the special teacher is responsible for the major portion of reading instruction. Three 20-minute or two 30-minute periods of intensive instruction each day are more effective with primary grade pupils than one period of 45-60 minutes.

As the visually handicapped children develop reading skill, they often are able to participate in some of the reading instruction in the regular first grade. Reading with sighted classmates is a highly motivating experience for visually handicapped children because they see how special instruction enables them to do what other children can do.

As visually handicapped children progress through the elementary grades, the responsibility for reading instruction is shared by the regular classroom teachers and the special teacher. Generally, the special teacher supplements regular classroom instruction by pro-

viding assistance in areas that would be too difficult or too time-consuming for the regular teacher. For example, regular teachers often present lessons in phonics and other methods of word analysis on the chalkboard. The special teacher supplements the classroom instruction by presenting such lessons individually to visually handicapped children, using flashcards or similar aids.

The foregoing discussion is intended to serve as an overview of provisions for reading instruction of visually handicapped children. Publications listed among the selected references in this publication give more detailed information.

Language Skills and Literature

In integrated programs visually handicapped students can participate in most of the regular classroom instruction pertaining to the development of language skills. The special teacher supplements the regular instruction with individual help in the development of spelling and writing skills.

Blind students need special assistance in learning the braille symbols and the rules for their use in writing. Dictionaries are available in large print and braille for studying syllabification, diacritical symbols, and so forth.

Creative writing offers excellent opportunities for helping visually handicapped students to develop their sensory powers. The special teacher and the classroom teachers can encourage blind and partially seeing students to write descriptively in terms of sounds, odors, tactual experiences, and other sensations.

The special teacher should make every effort to provide visually handicapped students with access to a wide range of literature. Visually handicapped students and their parents should have assistance in making use of talking books, tapes, and braille books available through the regional libraries of the Library of Congress. (See Appendix A, "Resource Agencies," for the addresses of these regional libraries.) Special teachers should be aware of new sources of library materials in large print.

Mathematics

The special teacher should provide individual instruction in mathematics for visually handicapped pupils. In integrated programs special instruction is usually supplemental to instruction given in the regular classroom. Blind and partially seeing children should have many opportunities for concrete experience with numbers, especially

in the kindergarten and primary grades. Small toys, counting frames, and the abacus are useful.¹¹

Because the mechanics of problem solving are more time-consuming for visually handicapped students, they may need to have shorter mathematics assignments than their seeing classmates. Blind students also need special instruction in the use of the Nemeth Code of braille mathematics. Because the braille symbols used in mathematics are the same symbols used in literary material, the special teacher must provide intensive instruction in the meaning and use of these symbols.

Special tangible aids for the teaching of algebra and geometry are available from The American Printing House for the Blind and the American Foundation for the Blind. (See Appendix A of this publication for the addresses of these agencies.) Examples of such aids are the Graphic Aid, a set of matched planes and volumes, braille slide rules, and braille protractors.

The special teacher should evaluate visually handicapped students' progress in mathematics. Achievement tests in braille and large print are available for this purpose.¹²

Foreign Languages

Oral and auditory techniques of studying foreign languages are especially suitable for blind and partially seeing students. Use of these techniques enables visually handicapped students to participate quite well in regular classes.

Braille and large-print textbooks and dictionaries in French, Spanish, Latin, and German are available through the American Printing House for the Blind. Volunteers who specialize in transcribing foreign languages into braille can provide textbooks and other materials on request.

Social Sciences

In integrated programs visually handicapped students receive the major portion of instruction in the social sciences from the regular classroom teacher. The special teacher should be aware, well in advance, of the topics to be covered in the social science program so that he can have materials ready for the students. Some materials needed may be reference books in braille, large print, or tape-recorded form, and maps in braille or large print.

¹¹See Carson Y. Nolan and June E. Morris, "The Japanese Abacus as a Computational Aid for Blind Children," *Exceptional Children*, XXXI (September, 1964), 15-17.

¹²See Carson Y. Nolan, "Achievement in Arithmetic Computation," *International Journal for the Education of the Blind*, VIII (May, 1959), 125-28.

The special teacher is responsible for instructing visually handicapped students in the use of aids such as globes, maps, and atlases in the study of geography. These materials, as well as encyclopedias, are available in braille and large print from sources such as the American Printing House for the Blind.

Whenever possible, the special teacher should try to provide artifacts in connection with the social science program. For example, if some of the visually handicapped students are studying Mexican culture in the regular classroom, the special teacher should arrange for them to examine and study articles of Mexican clothing, pottery, and so forth. A trip to a local museum may be very helpful.

Physical Science

Visually handicapped students receive the major portion of instruction in physical science in the regular class if they are enrolled in integrated programs. The regular classroom teacher can have visually handicapped students participate in an experiment or demonstration as he presents it to the class, or he can arrange for a seeing student to be partner to a visually handicapped student if the entire class is to conduct an experiment.

The special teacher and the regular classroom teacher should work together to provide special or adapted science equipment for visually handicapped students. Models available from regular school supply houses are often useful to both the blind and partially seeing students. Certain items of equipment, such as thermometers and barometers, marked in braille, are available from the American Foundation for the Blind.

Physical Education

Blind and partially seeing students should have regular instruction in physical education. In integrated programs in the elementary grades, responsibility for this instruction can be shared by the special teacher and the regular classroom teachers.

Visually handicapped students can participate in many of the regular physical education activities; for example, circle games, relay races, folk dancing, and physical fitness activities. Tumbling is a good activity for the visually handicapped, as are activities using playground equipment such as bars and swings. A number of blind and partially seeing students can participate in games such as volleyball and softball if certain adaptations are made.

Whenever necessary, the special teacher should request and receive assistance from district or county consultants in physical education. These consultants can be very helpful in determining the physical

needs of individual visually handicapped students and can suggest specific activities which will improve posture and strength.

In junior and senior high school physical education programs, blind and partially seeing students can participate in a number of regular activities such as swimming, wrestling, track, and modern dancing. Some visually handicapped students may profit from participation in special physical education classes established under the provisions of the California Administrative Code, Title 5, Education, sections 3630-3633.

Music

Visually handicapped students can participate quite well in the regular music program. Some of the state-adopted music textbooks are available in braille, and some partially seeing students can use the regular music textbook. If necessary, the music textbook can be typed in large print or enlarged through a film process. If the special teacher can read print music, it is to be hoped that he will learn to read the braille music code in order to assist blind students.

Visually handicapped students can gain much from participation in the school instrumental music program. Some instrumental music in braille is available from the American Printing House for the Blind; the services of transcribers skilled in the braille music code will be needed to obtain other instrumental music. Partially seeing students may be able to use some music in regular print or may need to have the music text enlarged through film processes.

Arts and Crafts

Many visually handicapped students can participate effectively in the regular art classes. In the elementary grades the special teacher can supplement the instruction of the regular class by helping children to learn how to use art tools effectively. Blind pupils can learn knitting, weaving, and clay modeling as substitutes for painting and drawing. A number of regular art activities, such as work with papier-mache, are very enjoyable for blind children.

Blind and partially seeing pupils should have opportunities to construct simple objects in wood, using hammers, saws, and other tools. This type of activity is very useful as preparation for industrial arts activities in high school.

Industrial Arts

Visually handicapped students should have opportunities to study industrial arts. Woodworking, electronics, and auto shop are among suitable courses for blind and partially seeing students.

Business Education

All blind and partially seeing students should have an opportunity to study typing in a regular typing class. If they have had individual instruction in typing since the intermediate grades, they should have little difficulty in learning to type business letters. Visually handicapped students should learn to use such office equipment as Dictaphones and Stenorettes. Office practice is often a useful subject for many visually handicapped students, although bookkeeping and shorthand are usually not suitable.

Homemaking and Home Economics

Visually handicapped students should have opportunities to study home economics. Nutrition, child care, and consumer education are very useful subjects for these students. A number of adapted sewing and cooking aids are available from the American Foundation for the Blind.

Evaluation of the Instructional Program

An adequate educational program for the visually handicapped should provide for evaluation of instructional effectiveness. Achievement tests are valuable for determining individual learning strengths and weaknesses of blind and partially seeing students. School districts are not required to include physically handicapped minors in the statewide achievement testing program; however, schools should provide for testing of visually handicapped students on an individual or small group basis. Under the supervision of the principal, the special teacher can administer tests adapted in braille or large print. Several widely used achievement tests are available through the American Printing House for the Blind.

CHAPTER VII

State Services for the Visually Handicapped

Services related to the visually handicapped are offered by several departments of California state government. Some of the services offered are identified in this chapter.

State Department of Education

Bureau for Physically Exceptional Children

As part of the Division of Special Education, the Bureau for Physically Exceptional Children offers consultative services, a clearinghouse-depository for special educational materials, and the processing of orders under the provisions of Public Law 84-922.

The consultants in the education of the visually handicapped work under the direction of the Chief of the Bureau for Physically Exceptional Children. Requests for services may be directed to the consultants assigned to specific areas. The consultants are expected to:

1. Develop, promote, and coordinate statewide policies and practices for the education of the visually handicapped
2. Confer with local, state, and federal personnel concerning the development, organization, and administration of programs for the visually handicapped
3. Cooperate with private and public agencies and organizations involved in the education of the visually handicapped
4. Assist in planning conferences and meetings for administrators, teachers, and transcribers
5. Work with personnel at colleges that provide teacher education courses in the area of the visually handicapped

One consultant is in charge of the Clearinghouse-Depository for the Visually Handicapped. This unit functions as a clearinghouse for textbooks and other instructional material produced in braille, large print, and recorded form for visually handicapped students. It also

serves as a depository for materials purchased with state or federal funds (Education Code Section 10301).

The annual registration of blind and partially seeing students and the administration of the American Printing House for the Blind quota funds under the provisions of Public Law 84-922 are handled by the Clearinghouse-Depository staff. These procedures have been described in Chapter II under "Registration."

Bureau of Teacher Education and Certification

The Bureau of Teacher Education and Certification is responsible for recommending to the State Board of Education the accreditation of preparation programs for teachers of the visually handicapped and the credentialing of special teachers for this category. Teachers of the visually handicapped, including mobility instructors, employed by school districts or the offices of county superintendents of schools to work in any authorized program as described in Chapter III must hold a special credential issued by the State Department of Education through this bureau (Education Code Section 6820).

Credentials authorized. Credentials authorized for teachers of the visually handicapped include the following:

1. *Standard Teaching Credential* – The Standard Teaching Credential requires an academic major and is issued with a specialization in elementary, secondary, or junior college teaching. Specialized preparation for teachers of the visually handicapped, according to the California Administrative Code, Title 5, Education, sections 6260, 6265, and 6266, is considered a minor under the regulations specified for this credential.

2. *The restricted credential* – Persons holding a restricted credential are restricted to the type of service specified on the credential. Specifications for the restricted credential as Teacher of Visually Handicapped Children are contained in the California Administrative Code, Title 5, Education, sections 6592-6593.

Specifications for the restricted credential as Teacher of the Visually Handicapped in Mobility are presented in the California Administrative Code, Title 5, Education, sections 6600-6601.

Specifications for the restricted credential as Teacher of Deaf-Blind Children are contained in the California Administrative Code, Title 5, Education, sections 6603-6604.

3. *Standard Designated Services Credential with a Specialization in Pupil Personnel Services as a Mobility Instructor for the Visually Handicapped* – Specifications for this credential are included in the

California Administrative Code, Title 5, Education, sections 6530-6531. This credential is issued only to persons employed by the Department of Rehabilitation, pursuant to the provisions of Education Code Section 6933.

Teacher Preparation Programs. The State Board of Education has accredited two programs for the preparation of teachers of the visually handicapped. These programs are offered at San Francisco State College and California State College at Los Angeles.

Bureau of Textbooks

The basic series of state-adopted elementary textbooks is available in braille and large print for eligible students. (See Education Code Sections 9316.1; see also the California Administrative Code, Title 5, Education, Section 9504.) Questions concerning the distribution or return of such free textbooks should be directed to the Bureau of Textbooks. Inquiries concerning supplementary textbooks for the elementary grades or textbooks for high school grades should be directed to the Clearinghouse-Depository for the Visually Handicapped.

Bureau of School Planning

The Bureau of School Planning supervises the administration of state school building aid. In 1952 the Legislature made special provisions for state school building aid for certain exceptional children, including blind and partially seeing students (Education Code Section 19683). The law provides that a percent of state school building aid funds, including proceeds from the sale of bonds authorized by Section 17 of Article XVI of the California Constitution, may be expended for school housing for exceptional children (Education Code Section 19681).

The obligation of any school district to repay an apportionment received under the provisions of Article XVI shall not extend to more than one-half of the amount of the apportionment (Education Code Section 19684).

The building areas, in square feet, required to provide adequate facilities for exceptional students, including partially seeing and blind students, are outlined in the California Administrative Code, Title 5, Education, Section 2046. Since many of the programs have been established on an integrated basis, and since most of these programs serve groups composed of both blind and partially seeing students, schools are encouraged to request the maximum areas allotted for the blind if they are serving combined groups of blind and partially seeing students.

The Bureau of School Planning, the Bureau for Physically Exceptional Children, and the applying school district must work together to plan the best facility possible. Guidelines in the preparation of requests for state school building aid for the visually handicapped are the following:

1. Conduct a survey to ascertain the number and location of visually handicapped students in the district and in other districts willing to contract for a service.
2. Secure the appropriate application and eligibility list forms from the Bureau for Physically Exceptional Children.
3. Fill in the forms completely. Send one copy of each form to the Bureau of School Planning and retain one copy for school district use. If the approval of the county superintendent is required, send one copy to him.

When the forms are received in the Bureau of Physically Exceptional Children, the list of eligible students is verified and the number of classrooms to be approved is determined. Then the bureau chief, acting for the Superintendent of Public Instruction, gives final approval by sending a memorandum of approval to the Bureau of School Planning (with copies to the school district and the special education consultant).

When the application has been approved, the school district's representative, the architect, the field representative from the Bureau of School Planning, and the consultant in education of the visually handicapped meet to plan the facilities.

After the district architect submits plans to the Bureau of School Planning for approval, the field representative makes any necessary changes, requests final plans from the architect, and grants final approval in writing for the state school building aid.

The State Board of Allocations approves all applications for housing and allocates to the district the funds necessary for construction.

The applying school district also prepares a furniture and equipment request, which is reviewed in the Bureau for Physically Exceptional Children and the Bureau of School Planning before being submitted to the Board of Allocations for final approval.

Sometimes, changes in population growth or in the range of ages of visually handicapped students being served make it necessary to relocate a special room constructed with state school building aid funds. Relocation is allowed if written approval is secured from the Department of Education through the Bureau for Physically Exceptional Children.

California School for the Blind

One residential school for the blind, located in Berkeley, California, provides services for the entire state. The school is operated by the State Department of Education through the Division of Special Education under the provisions of Education Code sections 25751-25754. The school's programs for the blind and the deaf-blind, together with procedures for applying for admission, are described in Chapter III.

California State Library

The State Library, through the services of The Library of Congress, provides materials free of charge to blind and physically handicapped persons. These materials include magazines and books in braille, talking books, and books on magnetic tape. Library services are available to readers of all ages.

State Department of Rehabilitation

The California State Department of Rehabilitation provides a wide variety of services to visually handicapped persons in California to help them to become employed. The Department describes its services to the blind and partially seeing as follows:

Rehabilitation services for the blind and otherwise severely visually impaired are part of the Department of Rehabilitation's total program to assist the disabled.

Some persons with severe visual loss already possess job skills. A program of adjustment services, vocational counseling and job placement enables these persons to reenter the labor market. The division provides these services through counselor-teachers, an orientation center, and vocational rehabilitation counselors.

Most often, the visually impaired person needs a combination of adjustment services, vocational evaluation and counseling, job training, job placement and followup. If surgery or other eye treatment is needed to restore vision or halt further loss of vision, it is usually taken care of before other services are begun. Services are available through several programs including Field Rehabilitation Services, Orientation Center for the Blind, Vocational Rehabilitation, Business Enterprise Program, Industrial Rehabilitation Services, and Treatment of Blindness.¹

Coordinating Council on State Programs for the Blind

In 1951 the California Legislature established a permanent Coordinating Council on State Programs for the Blind. (See Welfare and Institution Code sections 3210-3216.) The council is composed

¹State Services for the Blind in California, *op. cit.*, p.19.

of the directors of the State Department of Education, the State Department of Public Health, the State Department of Rehabilitation, and the State Department of Social Welfare. It is the responsibility of this council to recommend policies for the improvement of programs and to coordinate the efforts of various state departments to serve the blind. The council meets quarterly – more often, if called by the chairman – and reports annually to the Legislature.

A working committee, composed of representatives of the four state departments, meets quarterly and reports to the council through its chairman. The committee is referred to as the Coordinating Committee on State Services for the Blind. It serves as an excellent means for the exchange of ideas among the four departments.²

²Recently, legislation was enacted to repeal the provisions of the Welfare and Institutions Code pertaining to the Coordinating Council on State Programs for the Blind.

Selected References

Books, Periodicals, and Other Sources

General Interest

- Abel, Georgie Lee. "The Education of Blind Children," in *Education of Exceptional Children and Youth*. Edited by William M. Cruickshank and G. Orville Johnson. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1958, pp. 295-338.
- Ashcroft, Samuel C. "Blind and Partially Seeing Children," in *Exceptional Children in the Schools*. Edited by Lloyd M. Dunn. New York: Holt, Rinehart & Winston, Inc., 1963, pp. 413-53.
- Concerning the Education of Blind Children*. Educational Series No. 12. Compiled by Georgie Lee Abel. New York: American Foundation for the Blind, 1959.
- Cruickshank, William M., and Matthew J. Trippe. *Services to Blind Children in New York State*. Syracuse, N.Y.: Syracuse University Press, 1959.
- Cutsforth, Thomas D. *The Blind in School and Society: A Psychological Study*. New York: American Foundation for the Blind, 1951.
- Foote, Franklin M., Dorothy Bryan, and Helen Gibbons. *Education and Health of the Partially Seeing Child* (Fourth edition). New York: Columbia University Press, 1959.
- Henderson, Florence. "Understanding Our Limitations in a Functional Education for Blind Children," *The New Outlook for the Blind*, XLVIII (December, 1954), 1-7.
- Itinerant Teaching Service for Blind Children: Proceedings of a National Work Session Held at Bear Mountain, New York, on August 20-24, 1956*. Group Reports, No. 5. New York: American Foundation for the Blind, 1957.
- Johnson, Isabel. *A Blind Child Becomes a Member of Your Class*. Educational Series, No. 14. New York: American Foundation for the Blind, 1961.

- Jones, John Walker, and Anne P. Collins. *Educational Programs for Visually Handicapped Children*. OE-35070. Bulletin 1961, No. 6. Washington, D.C.: U.S. Department of Health, Education, and Welfare, 1966.
- Lowenfeld, Berthold. *Our Blind Children: Growing and Learning with Them*. Springfield, Ill.: Charles C. Thomas, Publisher, 1956.
- Meyer, George F. "Education of Blind Children in the Public Schools," in *Blindness: Modern Approaches to the Unseen Environment*. Edited by Paul A. Zahl. Princeton, N.J.: Princeton University Press, 1950, pp. 109-118.
- Misbach, Dorothy L. "Educating Visually Impaired Children," *California Education*, I (April, 1964), 3-5.
- Norris, Miriam, and Others. *Blindness in Children*. Chicago: University of Chicago Press, 1957.
- The Pine Brook Report: National Work Session on the Education of the Blind with the Sighted*. Group Reports, No. 2. New York: American Foundation for the Blind, 1954.

Instruction

- Alma, Sister Mary. *Little Lessons for Little Fingers*. New York: Lavelle School for the Blind, 1959.
- Buell, Charles E. *Physical Education for Blind Children*. Springfield, Ill.: Charles C. Thomas, Publisher, 1966.
- Carter, Burnham. "How to Use Educational Recordings Effectively - A Survey of Blind College Students," *The New Outlook for the Blind*, LVI (November, 1962), 332-34.
- Coffey, John L. "Programmed Instruction for the Blind," *The International Journal for the Education of the Blind*, XIII (December, 1963), 38-44.
- Cohoe, Edith. "Teaching Reading to the Partially Seeing Child," *Exceptional Children*, XXVII (September, 1960), 11-17.
- Davidow, Mae, *The Abacus Made Easy*, Louisville, Ky.: American Printing House for the Blind, 1967.
- Dorward, Barbara, and Natalie Barraga. *Teaching Aids for Blind and Visually Limited Children*. New York: American Foundation for the Blind, 1968.
- Foulke, Emerson. "The Role of Experience in the Formation of Concepts," *The International Journal for the Education of the Blind*, XII (October, 1962), 1-6.

- Foulke, Emerson, and Others. "The Comprehension of Rapid Speech by the Blind," *Exceptional Children*, XXIX (November, 1962), 134-41.
- Gissoni, F.L. *Using the Cranmer Abacus for the Blind*. Louisville, Ky.: American Printing House for the Blind, 1962.
- Haliczer, S.L. "Physical Education Test for Boys," *The International Journal for the Education of the Blind*, VIII (May, 1959), 129-33.
- Huffman, Mildred B. *Fun Comes First for Blind Slow-Learners*. Springfield, Ill.: Charles C. Thomas, Publisher, 1957.
- Huffman, Mildred B., and Diana DePietro. "Creating Motivation Through Meaningful Reading," *The International Journal for the Education of the Blind*, XII (December, 1962), 33-39.
- Industrial Arts for Blind Students*. Group Reports, No. 6. New York: American Foundation for the Blind, 1960.
- Kenmore, Jeanne Rice. "Enrichment of the Primary Reading Program in the Resource Room," *The New Outlook for the Blind*, LI (February, 1957), 56-64.
- Ligouri, Sister M. "Building Reading Readiness in Blind Children," *The New Outlook for the Blind*, L (October, 1956), 295-302.
- Lowenfeld, Berthold. "Psychological Foundation of Special Methods in Teaching Blind Children," in *Blindness: Modern Approaches to the Unseen Environment*. Edited by Paul A. Zahl. Princeton, N.J.: Princeton University Press, 1950, pp. 89-108.
- Lowenfeld, Berthold, Georgie Lee Abel, and Philip H. Hatlen. *Blind Children Learn to Read*. Springfield, Ill.: Charles C. Thomas, Publisher, 1968.
- Nolan, Carson Y. "Achievement in Arithmetic Computation," *The International Journal for the Education of the Blind*, VIII (May, 1959), 125-28.
- Nolan, Carson Y. "Reading and Listening in Learning by the Blind," *Exceptional Children*, XXIX (March, 1963), 313-16.
- Nolan, Carson Y., and June E. Morris. "The Japanese Abacus as a Computational Aid for Blind Children," *Exceptional Children*, XXXI (September, 1964), 15-17.
- Olsen, Maurice. "Modern Curriculum Provisions for Visually Handicapped Children," *The International Journal for the Education of the Blind*, XII (March, 1963), 80-83.
- Paul, Raymond, and Pellegrino W. Goione, "Composition Through Typing: Instruction in Communication for the Blind," *Exceptional Children*, XXXV (October, 1968), 154-58.

Peabody, Ralph L., and Jack W. Birch, "Educational Implications of Partial Vision: New Findings from a National Study," *The International Journal for the Education of the Blind*, XVII (October, 1967), 21-24.

The Physical Performance Test for California. Prepared by a joint county committee. Sacramento: California State Department of Education, 1966.

Pomeroy, Janet. *Recreation for the Physically Handicapped*. New York: Macmillan Company, 1964.

Pratt. *Typewriting for Elementary School Children*. North Carolina School for the Blind. Louisville, Ky.: American Printing House for the Blind, 1963.

Schmidt, Edna H. "Teaching Reading by Use of Word Games," *The International Journal for the Education of the Blind*, VIII (December, 1958), 46-50.

Stoesz, Gilbert, and Robert A. Bowers. "Early Piano Instruction for Partially Seeing Children," *The Sight-Saving Review*, XXXV (Spring, 1965), 24-27.

Wienke, Phoebe. "Blind Children in an Integrated Physical Educational Program," *The New Outlook for the Blind*, LX (March, 1966), 73-76.

Guidance and Counseling

Abel, Georgie Lee. "The Blind Adolescent and His Needs," *Exceptional Children*, XXXVII (February, 1961), 309-34.

Barker, Roger G., and Others. *Adjustment to Physical Handicap and Illness: A Survey of the Social Psychology of Physique and Disability*. New York: Social Science Research Council, 1953.

Bauman, Mary K., and Norman M. Yoder. *Adjustment to Blindness, Re-Viewed*. Springfield, Ill.: Charles C. Thomas, Publisher, 1966.

Cholden, Louis S. *A Psychiatrist Works with Blindness*. Selected papers. New York: American Foundation for the Blind, 1958.

Cowen, Emory L., and Others. *Adjustment to Visual Disability in Adolescence*. New York: American Foundation for the Blind, 1961.

Crawford, Fred L. "Occupational Information and the School Guidance Program," *The International Journal for the Education of the Blind*, XIII (December, 1963), 45-47.

- Ferson, R. F. "Vocational Guidance at the Western Pennsylvania School," *The New Outlook for the Blind*, XLIX (January, 1955), 6-15.
- Freedman, Saul. "Personality Growth," *The New Outlook for the Blind*, LX (June, 1966), 173-76.
- Guidance Programs for Blind Children*. Publication No. 20. Watertown, Mass.: Perkins School for the Blind, 1959.
- Jervis, Frederick M. "The Self in Process of Obtaining and Maintaining Self-Esteem," *The New Outlook for the Blind*, LVIII (February, 1964), 51-54.
- Lowenfeld, Berthold. "The Blind Adolescent in a Seeing World," *Exceptional Children*, XXV (March, 1959), 310-315.
- Lowenfeld, Berthold. "The School Psychologist and the Visually Handicapped Child," in *Professional School Psychology*, Vol. II. Edited by Monroe B. Gottsegen and Gloria B. Gottsegen. New York: Grune & Stratton, Inc., 1963.
- Mandelbaum, Arthur, and Mary Ella Wheeler. "The Meaning of a Defective Child to Parents," *The New Outlook for the Blind*, LIV (November, 1960), 320-28.
- Psychological Diagnosis and Counseling of the Adult Blind*. Edited by W. Donahue and D. Dabelstein. New York: American Foundation for the Blind, 1950.
- Rusalem, Herbert. "The Importance of an Occupational Choice in the College Adjustment of Blind Students," *International Journal for the Education of the Blind*, XI (December, 1961), 33-36.
- Sommers, Vita Stein. *The Influence of Parental Attitudes and Social Environment on the Personality Development of the Adolescent Blind*. New York: American Foundation for the Blind, 1944.

Psychological and Educational Evaluation

- Bateman, Barbara. "Mild Visual Defect and Learning Problems in Partially Seeing Children," *The Sight-Saving Review*, XXIII (Spring, 1963), 30-33.
- Bateman, Barbara. "Psychological Evaluation of Blind Children," *The New Outlook for the Blind*, LIX (June, 1965), 193-96.
- Bateman, Barbara. *Reading and Psycholinguistic Processes of Partially Seeing Children*. CEC Research Monograph, Series A, No. 5. Washington, D.C.: Council for Exceptional Children, National Education Association, n.d.

- Bauman, Mary K. "Group Differences Disclosed by Inventory Items," *The International Journal for the Education of the Blind*, XIII (May, 1964), 101-6.
- Bauman, Mary K. *Tests Used in the Psychological Evaluation of Blind and Visually Handicapped Persons and a Manual of Norms for Tests Used in Counseling Blind Persons*. Washington, D.C.: American Association of Workers for the Blind, Inc., 1968.
- Bauman, Mary K., and Norman M. Yoder. *Adjustment to Blindness, Re-Viewed*. Springfield, Ill.: Charles C. Thomas. Publisher, 1966.
- Curtis, W. Scott. "The Evaluation of Verbal Performance in Multiply Handicapped Blind Children," *Exceptional Children*, XXXII (February, 1966), 367-74.
- Dauterman, William L., Bernice Shapiro, and Richard M. Suinn. "Performance Tests of Intelligence for the Blind Reviewed," *The International Journal for the Education of the Blind*, XVII (October, 1967), 8-16.
- Davis, Carl J. "The Assessment of Intelligence of Visually Handicapped Children," *The International Journal for the Education of the Blind*, XII (December, 1962), 48-51.
- Davis, Carl J., 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*, X (March, 1961), 80-82.
- Gilbert, Jeanne G., and Edmund J. Rubin. "Evaluating the Intellect of Blind Children," *The New Outlook for the Blind*, LIX (September, 1965), 238-40.
- Hayes, Samuel P. "Measuring the Intelligence of the Blind," in *Blindness: Modern Approaches to the Unseen Environment*. Edited by Paul A. Zahl. Princeton, N.J.: Princeton University Press, 1950, pp. 141-73.
- Hepfinger, Lucy M. "Psychological Evaluation of Young Blind Children," *The New Outlook for the Blind*, LVI (November, 1962), 309-15.
- Hopkins, Kenneth D., and Lenore McGuire. "Mental Measurement of the Blind: The Validity of the Wechsler Intelligence Scale for Children," *The International Journal for the Education of the Blind*, XV (March, 1966), 65-73.
- Karnes, Merle B., and Janet P. Wollersheim. "An Intensive Differential Diagnosis of Partially Seeing Children to Determine the

- Implications of Education," *Exceptional Children*, XXX (September, 1963), 17-25.
- Mueller, Max W. "Effects of Illustration Size on Test Performance of Visually Limited Children," *Exceptional Children*, XXIX (November, 1962), 124-28.
- Nolan, Carson Y. "Evaluating the Scholastic Achievement of Visually Handicapped Children," *Exceptional Children*, XXVIII (May, 1962), 493-96.
- Nolan, Carson Y., and Samuel C. Ashcroft. "The Stanford Achievement Arithmetic Computation Tests," *The International Journal for the Education of the Blind*, VIII (March, 1959), 89-92.
- Pearson, Margaret Adelle. "The Establishment of School and College Ability Test Norms for Blind Children in Grades 4, 5, and 6," *The International Journal for the Education of the Blind*, XII (May, 1963), 110-12.

Orientation and Mobility

- Cratty, Bryant J., and Theresa A. Sams. *The Body-Image of Blind Children*. New York: The American Foundation for the Blind, 1968.
- "Dog Guides and Blind Children: A Joint Statement," *The International Journal for the Education of the Blind*, XIII (October, 1963), 16.
- Finestone, Samuel, Irving F. Lukoff, and Martin Whiteman. *Aspects of the Travel Adjustment of Blind Persons*. New York: American Foundation for the Blind, 1960.
- Finestone, Samuel, Irving F. Lukoff, and Martin Whiteman. *The Demand for Dog Guides and the Travel Adjustment of Blind Persons*. New York: Columbia University Press, 1960.
- Hapeman, Lawrence B. "Developmental Concepts of Blind Children Between the Ages of Three and Six as They Relate to Orientation and Mobility," *The International Journal for the Education of the Blind*, XVII (December, 1967), 41-48.
- Manley, Jesse. "Orientation and Foot Travel for the Blind Child," *The International Journal for the Education of the Blind*, XII (October, 1962), 8-13.
- Richterman, Harold. "Mobility Instruction for the Partially Seeing," *The New Outlook for the Blind*, LX (October, 1966), 236-38.

Standards for Mobility Instructors. New York: American Foundation for the Blind, 1962.

Whitstock, R.H. "Orientation and Mobility for Blind Children," *The New Outlook for the Blind*, LIV (March, 1960), 90-94.

Visual Impairment

Adler, Francis Heed. *Gifford's Textbook of Ophthalmology* (Sixth edition). Philadelphia: W. B. Saunders Company, 1957.

Fonda, Gerald. "Definition and Classification of Blindness with Respect to Ability to Use Residual Vision," *The New Outlook for the Blind*, LV (May, 1961), 169-72.

Frank, Joseph J. "As Seen by the Ophthalmologist," *The New Outlook for the Blind*, LV (March, 1961), 99-101.

A Guide for Vision Screening in California Public Schools (1964 edition). Sacramento: California State Department of Education, 1964.

Hoover, Richard E. *Visual Efficiency as a Criterion of Service Needs*. Research Bulletin No. 3. New York: American Foundation for the Blind, 1963.

Hurlin, Ralph G. "Estimated Prevalence of Blindness in the United States and in Individual States, 1960," *The Sight-Saving Review*, XXXII (Spring, 1962), 4-12.

Jones, John Walker. "Problems in Defining and Classifying Blindness," *The New Outlook for the Blind*, LVI (April, 1962), 115-21.

May's Manual of the Diseases of the Eye (Twenty-second edition). Edited by Charles A. Perera. Baltimore: Williams & Wilkins Company, 1957.

Powers, Margaret Hall, Samuel M. Schall, and Rosemary A. Welsch. "Utilization of Medical Information in School Planning for Visually Handicapped Children," *Exceptional Children*, XXXII (September, 1965), 5-14.

Schloss, Irvin P. *Implications of Altering the Definition of Blindness*. Research Bulletin No. 3. New York: American Foundation for the Blind, 1963.

Sibert, Katie N. "The 'Legally Blind' Child With Useful Residual Vision," *The International Journal for the Education of the Blind*, XVI (December, 1966), 33-44.

Sibert, Katie N. "The Use of Eye Reports by an Educator," *The International Journal for the Education of the Blind*, XV (March, 1966), 78-81.

Sloane, Albert, and Others. *The Value of Low Vision Aids*. New York: National Society for the Prevention of Blindness, Inc., 1961.

Multihandicapped Children

Cicenia, Erbert F., and Others. "The Blind Child With Multiple Handicaps: A Challenge," *The International Journal for the Education of the Blind*, XIV (March, 1965), 65-71.

Cruikshank, William M. "The Multiple-Handicapped Child and Courageous Action," *The International Journal for the Education of the Blind*, XIII (March, 1964), 65-75.

Donlon, Edward T. "An Evaluation Center for the Blind Child with Multiple Handicaps," *The International Journal for the Education of the Blind*, XIII (March, 1964), 75-78.

Guldager, Lars. "The Deaf Blind: Their Education and Their Needs," *Exceptional Children*, XXXVI (November, 1969), 203-6.

Moor, Pauline M. "Blind Children With Developmental Problems," *Children*, VIII (January-February, 1961), 9-13.

No Place to Go. A symposium edited by Kathern F. Gruber and Pauline M. Moor. New York: American Foundation for the Blind, 1963.

Norris, M. "What Affects Blind Children's Development," *Children*, III (July-August, 1956), 123-29.

Parmelee, Arthur H., Meldon Wasco, and Helen Zimmelman. "Blindness in Children in the Los Angeles Area," *The Sight-Saving Review*, XXXVI (Spring, 1966), 23-26.

Robbins, Nan. *Educational Beginnings with Deaf-Blind Children*. Watertown, Mass.: Perkins School for the Blind, 1960.

Research

Ashcroft, Samuel C., and Randall K. Harley. "The Visually Handicapped," *Review of Educational Research* (American Educational Research Association, National Education Association), XXXVI (February, 1966), 75-92.

Axelrod, Seymour. *Effects of Early Blindness: Performance of Blind and Sighted Children on Tactile and Auditory Tasks*. Research Series No. 7. New York: American Foundation for the Blind, 1959.

Blind Children: Degree of Vision, Mode of Reading. OE-35026. Bulletin 1961, No. 24. Prepared by John Walker Jones. Washing-

- ton, D.C.: U.S. Department of Health, Education, and Welfare, 1961.
- Dupress, John K. "Braille Research and Development: Progress and Predictions," *The International Journal for the Education of the Blind*, XV (March, 1966), 74-78.
- Harley, Randall K., Jr. *Verbalism Among Blind Children*. Research Series No. 10. New York: American Foundation for the Blind, 1963.
- Lowenfeld, Berthold. "Psychological Problems of Children with Impaired Vision," in *Psychology of Exceptional Children and Youth* (Second edition). Edited by William M. Cruickshank. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1963, pp. 227-310.
- Mueller, Max W. "Effects of Illustration Size on Test Performance of Visually Limited Children," *Exceptional Children*, XXIX (November, 1962), 124-28.
- Nolan, Carson Y. "Readability of Large Types: A Study of Type Sizes and Type Styles," *The International Journal for the Education of the Blind*, IX (December, 1959), 41-44.
- Nolan, Carson Y. "A Study of Pictures for Large Type Textbooks," *The International Journal for the Education of the Blind*, IX (March, 1960), 67-70.

Technical Materials

- Ashcroft, Samuel C., and Freda Henderson. *Programmed Instruction in Braille*. Pittsburgh, Pa.: Stanwix House, Inc., 1963.
- Code of Braille Textbook Formats and Techniques*. Compiled under the authority of the American Association of Instructors of the Blind and the American Association of Workers for the Blind, and adopted January 1, 1965. Louisville, Ky.: American Printing House for the Blind, 1965.
- English Braille* (American revised edition). Compiled under the authority of the American Association of Instructors of the Blind and the American Association of Workers for the Blind. Adopted January 1, 1959. Louisville, Ky.: American Printing House for the Blind, 1962.
- Guidelines for the Production of Material in Large Type*. New York: National Society for the Prevention of Blindness, Inc., 1965.
- Helms, Arthur. *Recording Books for the Blind*. New York: American Foundation for the Blind, 1951.

- The Nemeth Code of Braille Mathematical and Scientific Notation.* Developed by Abraham Nemeth in conjunction with the Joint Committee on Mathematics and Scientific Notation of the AAIB-AAWB Braille Authority and the National Braille Association, Inc. Adopted January 1, 1965. Louisville, Ky.: American Printing House for the Blind, 1966.
- Recording Science Texts for the Blind.* New York: American Foundation for the Blind, 1957.
- Some Suggested Sources of Equipment and Teacher Aids for Partially Seeing Children.* New York: National Society for the Prevention of Blindness, Inc., 1966.

Physical Plant

- American Standard Guide for School Lighting.* Sponsored by the American Institute of Architects, the Illuminating Engineering Society, and the National Council on Schoolhouse Construction; approved by the American Standards Association, Inc. New York: Illuminating Engineering Society, 1962.
- School Lighting Application Data* (Third edition). Excerpts from the *IES Lighting Handbook*. New York: Illuminating Engineering Society, n.d.
- Seagers, Paul W. *Light, Vision, and Learning.* New York: Better Light/Better Sight Bureau, 1963.

Teacher Education

- A Teacher Education Program for Those Who Serve Blind Children and Youth.* New York: American Foundation for the Blind, 1961.
- Teachers of Children Who Are Blind.* Bulletin 1955, No. 10. Prepared by Romaine P. Mackie and Lloyd M. Dunn. Washington, D.C.: U.S. Department of Health, Education, and Welfare, 1955.
- Teachers of Children Who Are Partially Seeing.* Bulletin 1956, No. 4. Prepared by Romaine P. Mackie and Edith Cohoe. Washington, D.C.: U.S. Department of Health, Education, and Welfare, 1956.

Films

- Betty Sees a Bird*, 20 minutes, black and white. National Society for the Prevention of Blindness, 16 E. 40th St., New York, N.Y. 10016. (Intended to aid in preparing volunteers or nurses to test visual acuity of preschool children.)

Children of the Silent Night, 27 minutes, color. The Film Library, Campbell Films, Saxtons River, Vt. 05154. (Documentary film about children of Deaf-Blind Department, Perkins School for the Blind, Watertown, Mass. Children from six through their teens are shown receiving education as deaf-blind children. Film centers on little six-year-old girl, Debbie, who can neither see nor hear. Specific techniques in building speech are shown.)

**Communicating with Deaf-Blind People*, 18 minutes, color. American Foundation for the Blind, 15 W. 16th St., New York, N.Y. 10011. (Demonstrates, through actual conversation with six deaf-blind people, the five most commonly used methods of communicating with deaf-blind individuals in the United States. Methods are printing in palm, alphabet glove, one-hand manual alphabet, tellatouch, and vibration method.)

Crossroads at 4, 13 minutes, color. National Society for the Prevention of Blindness, 16 E. 40th St., New York, N.Y. 10016. (Dramatic discovery of young boy's latent amblyopia.)

Eyes for Tomorrow, 22 minutes, black and white. National Society for the Prevention of Blindness, 16 E. 40th St., New York, N.Y. 10016. (Deals with relationship between eye health and general health; care of the baby's eyes at birth; ocular implications of contagious diseases; industrial hazards and importance of good lighting and safe working practices; value and significance of regular ophthalmologic examinations. Outlines symptoms, detection, and treatment of glaucoma; visual screening tests; special educational facilities for partially seeing child. Suitable for all ages except young children.)

Fair Chance for Tommy, 11 minutes, black and white. National Society for the Prevention of Blindness, 16 E. 40th St., New York, N.Y. 10016. (Story of partially seeing child enrolled in regular grades in public schools. Shows essential services given by resource and itinerant special teachers of partially seeing.)

*Entries marked with an asterisk are films that can be borrowed by California personnel. Requests to borrow any of these films should be submitted in southern California to Joan Sweeney, Consultant in Education of the Visually Handicapped, California State Department of Education, 803-H State Bldg., 217 W. First St., Los Angeles 90012; in northern California, to Dorothy L. Misbach, Consultant in Education of the Visually Handicapped, California State Department of Education, Room 666, 721 Capitol Mall, Sacramento 95814.

- First Steps in Clay Modeling*, 15 minutes, black and white. American Foundation for the Blind, 15 W. 16th St., New York, N.Y. 10011. (Shows one approach to plastic art instruction with a blind child.)
- For the Child Whose Hurt Doesn't Show*, 13 minutes. National Aid to Visually Handicapped, 3201 Balboa St., San Francisco, Calif. 94121. (Covers problems of partially seeing from medical, social, and educational viewpoint. Basically designed for lay education purposes but can be used in conjunction with other materials as part of professional education program.)
- **From Here to There*, 25 minutes, black and white. Extension Media Center, University of California, Berkeley, Calif. 94720. (Demonstrates development of incidental and specific skills in orientation and mobility of blind children. Intended primarily to aid in training of teachers of the blind, film is useful in defining development of orientation and mobility to classroom teachers, school administrators, and parents.)
- **Glaucoma - Sneak Thief of Sight*, 27 minutes, color. National Society for the Prevention of Blindness, 16 E. 40th St., New York, N.Y. 10016. (Tells dramatic story of Louisa Curtis, who is found to have glaucoma. Illustrates vividly what can be done by individuals, organizations, and the community to prevent needless loss of sight from this insidious disease.)
- **Johnny's New World*, 20 minutes, color. National Society for the Prevention of Blindness, 16 E. 40th St., New York, N.Y. 10016. (Deals with teacher observation and detection of children's eye problems.)
- **Legacy of Anne Sullivan*, 28 minutes, color. Film Library, Campbell Films, Academy Avenue, Saxtons River, Vt. 05154. (Shows work being done with children and adults to overcome handicap of deaf-blindness. Specific techniques of teaching and rehabilitation are shown. Shows how work being done today in this country stems from pioneering work by Anne Sullivan with Helen Keller.)
- The Long Cane*, 32 minutes (Part I); 34 minutes (Part II). U.S. Veterans Administration, Visual Aids Services, Washington, D.C. 20025. (Intended for indoor (Part I) and outdoor (Part II) mobility instruction for blinded veterans. Useful to show teachers importance and complexity of mobility instruction.)
- **Physical Education for the Blind*, 35 minutes, color, silent. Prepared by Charles Buell, formerly with the California School for the Blind. (Presents general survey of physical activities of blind

children. Included are physical activities for younger and older boys and girls. Some activities shown are calisthenics, tumbling, wrestling, bowling, hiking, swimming, football, baseball, track and field, volleyball, tag games, and other games of low organization. There is also a short section showing folk dancing.)

Save Your Sight, 27 minutes, color. National Society for the Prevention of Blindness, 16 E. 40th St., New York, N.Y. 10016. (Physiology of the eye. Educational film for lay groups as well as such professional groups as nurses and technicians.)

See Better: Healthy Eyes, 10 minutes, black and white. Produced by Coronet Instructional Films. National Society for the Prevention of Blindness, 16 E. 40th St., New York, N.Y. 10016. (Deals with simple principles of eye anatomy, eye health and protection.)

**Show Us the Way*, 20 minutes, color. Oregon State School for the Blind, 700 Church St., S.E., Salem, Ore. 97310. (Shows multi-handicapped children in some of their daily activities at the Oregon State School for the Blind.)

Sight for a Lifetime, 20 minutes, black and white. National Society for the Prevention of Blindness, 16 E. 40th St., New York, N.Y. 10016. (Forcefully depicts need for unfaltering eye health and safety through man's lifespan and the role the National Society has played in alerting the United States to this need. Covers preschool vision screenings, education of partially seeing students, eye accident prevention among children, school eye safety, the Wise Owl Industrial Eye Safety Incentive Plan, glaucoma screening, cataracts, public education, and research.)

The Smartest Kid in Town, 20 minutes, color. National Society for the Prevention of Blindness, 16 E. 40th St., New York, N.Y. 10016. (Dramatizes serious problem of children's eye accidents in schools, in the home, and at play.)

**Some of Our Schoolmates Are Blind*, 20 minutes, color. American Foundation for the Blind, 15 W. 16th St., New York, N.Y. 10011. (Depicts program of education at Temple City, California, for blind students within a regular public school situation; defines the role of the resource teacher who gives special instruction where needed; shows kinds of special equipment in use; and, above all, shows blind boys and girls living and learning in a normal life environment.)

- **Speech Instruction with a Deaf-Blind Pupil*, 6 minutes, color. The Film Library, Campbell Films, Saxtons River, Vt. 05154. (Teacher demonstrates working with one child on tactile lip reading. Effort required by the pupil to reproduce vibration of teacher's voice with clarity is shown. Taken at the Perkins School for the Blind.)
- **Testing Multiple Handicapped Children*, 30 minutes, black and white. General Services Department, United Cerebral Palsy Associations, 321 W. 44th St., New York, N.Y. 10036.
- **Toward Tomorrow*, 42 minutes, black and white. American Foundation for the Blind, 15 W. 16th St., New York, N.Y. 10011. (A series of sequences of nine totally blind preschool- and school-age children taken in children's homes or in schools they are attending.)
- What a Blind Man Sees*, 13 minutes, black and white. American Foundation for the Blind, 15 W. 16th St., New York, N.Y. 10011. (Not all blind people are totally blind; many of them have varying kinds and degrees of residual vision, such as peripheral vision, pinpoint vision, a little perception of light and dark. The camera lens here attempts to duplicate what a blind person actually sees with these various conditions and degrees of blindness.)
- When You Meet a Blind Man*, 13 minutes, black and white. American Foundation for the Blind, 15 W. 16th St., New York, N.Y. 10011. (Seven well-adjusted blind are shown in everyday activities, sometimes hampered by well-intentioned but misguided efforts of the sighted public. Various "do's" and "don'ts" for contacts with the blind people are suggested.)
- You and Your Eyes*, 8 minutes, color. Produced by Walt Disney Productions. National Society for Prevention of Blindness, 16 E. 40th St., New York, N.Y. 10016. (Shows structure and operation of the eye. Features "Jiminy Cricket" furnishing rules for care of eyes.)
- Your Eyes*, 10 minutes, black and white. National Society for the Prevention of Blindness, 16 E. 40th St., New York, N.Y. 10016. (Eye anatomy and function interpreted in highly original way by sleight-of-hand performer and chalkboard artist. Deals also with correction of visual defects by physician; good lighting for work and play.)

APPENDIX A Resource Agencies

Federal Agencies

- Bureau of Education for the Handicapped, U.S. Office of Education,
Department of Health, Education, and Welfare, Washington, D. C.
20202
- Division for the Blind and Physically Handicapped, Library of
Congress, 1291 Taylor St., N. W., Washington, D. C. 20542
- Division of Services to the Blind, Vocational Rehabilitation Adminis-
tration, Department of Health, Education, and Welfare, Wash-
ington, D. C. 20201
- National Institute of Neurological Diseases and Blindness, Depart-
ment of Health, Education, and Welfare, Bethesda, Md. 20014
- Veterans Administration, Washington, D. C. 20420

State Agencies

- Books for the Blind, Room 211, California State Library, Library
and Courts Building, Sacramento, Calif. 95809
- Bureau for Physically Exceptional Children, California State Depart-
ment of Education, 721 Capitol Mall, Sacramento, Calif. 95814
- California State Department of Rehabilitation, 714 "P" St., Sac-
ramento, Calif. 95814
- Division for the Blind, California State Department of Social Welfare,
2415 1st Ave., P.O. Box 8074, Sacramento, Calif. 95818

Private Agencies

- American Association of Workers for the Blind, Inc., 1511 K St., N.
W., Washington, D. C. 20005
- American Brotherhood for the Blind, Inc., 2652 Shasta Rd.,
Berkeley, Calif. 94708
- American Foundation for the Blind, 15 W. 16th St., New York, N.
Y. 10011
- American Printing House for the Blind, 1839 Frankfort Ave.,
Louisville, Ky. 40206

- Associated Blind of California, Inc., 836 Resota, Hayward, Calif.
94545
- Association for Education of the Visually Handicapped, 1604 Spruce
St., Philadelphia, Pa. 19103
- Braille Institute of America, 741 N. Vermont Ave., Los Angeles,
Calif. 90028
- California Congress of Parents and Teachers, Inc., 930 Georgia St.,
Los Angeles, Calif. 90015
- California Council of the Blind, 205 S. Western Ave., Room 201, Los
Angeles, Calif. 90004
- California Transcribers and Educators of the Visually Handicapped,
751 El Encino Way, Sacramento, Calif. 95825
- Council for Exceptional Children, National Education Association,
1201-16th St., N. W., Washington, D.C. 20036
- Crown Zellerbach Foundation, 1 Bush St., San Francisco, Calif.
94119
- Delta Gamma Foundation, 3250 Riverside Dr., Columbus, Ohio
43221
- Guide Dogs for the Blind, Inc., P.O. Box 1200, San Rafael, Calif.
94902
- Lions International, 209 N. Michigan Ave., Chicago, Ill. 60601
- National Aid to Visually Handicapped, 3201 Balboa St., San
Francisco, Calif. 94121
- National Braille Association, Inc., 51 E. 42nd St., New York, N. Y.
10017
- National Federation of the Blind, Inc., 2652 Shasta Rd., Berkeley,
Calif. 94708
- National Society for the Prevention of Blindness, Inc., 79 Madison
Ave., New York, N.Y. 10016
- Northern California Society for the Prevention of Blindness, 4200
California St., San Francisco, Calif. 94118
- Recordings for the Blind, Inc., 215 E. 58th St., New York, N. Y.
10022
- Seeing Eye, Inc., Morristown, N. J. 07960
- Southern California Society for the Prevention of Blindness, 6922
Hollywood Blvd., Los Angeles, Calif. 90028
- Stanwix House, Inc., 3020 Chartiers Ave., Pittsburgh, Pa. 15204
- Variety Club Blind Babies Foundation, Inc., 90 Golden Gate Ave.,
San Francisco, Calif. 94102

APPENDIX B Eye Report for Children with Visual Problems

Eye Report for Children with Visual Problems

CONFIDENTIAL

To be filled in school personnel

Name of Pupil (Type or print) _____ Sex _____ Race _____
 (First) (Middle) (Last)
 Address _____ Date of birth _____
 (Number and street) (City or town) (County) (State) Month Day Year
 Grade _____ District of attendance _____ District of residence _____
 Parents or guardian _____

I. HISTORY

- A. Probable age at onset of vision impairment. Right eye (O.D.) _____ Left eye (O.S.) _____
- B. Severe ocular infections, injuries, operations. If any, with age at time of occurrence _____
- C. Has pupil's ocular condition occurred in any blood relatives? _____ If so, what relationship(s)? _____

II. MEASUREMENTS (See back of form for preferred notation for recording visual acuity and table of approximate equivalents.)

A. VISUAL ACUITY	DISTANT VISION			NEAR VISION			PRESCRIPTION		
	Without correction	With best correction*	With low vision aid	Without correction	With best correction*	With low vision aid	Sph.	Cyl.	Axis
Right eye (O.D.)	_____	_____	_____	_____	_____	_____	_____	_____	_____
Left eye (O.S.)	_____	_____	_____	_____	_____	_____	_____	_____	_____
Both eyes (O.U.)	_____	_____	_____	_____	_____	_____	Date _____		

B. If glasses are to be worn, were safety lenses prescribed in Plastic _____ Tempered glass _____ *with ordinary lenses

C. If low vision aid is prescribed, specify type and recommendations for use. _____

- D. FIELD OF VISION; Is there a limitation? _____ If so, record results of test on chart on back of form.
 What is the widest diameter (in degrees) of remaining visual field? O.D. _____ O.S. _____
- E. Is there impaired color perception? _____ If so, for what color(s)? _____

III. CAUSE OF BLINDNESS OR VISION IMPAIRMENT

- A. Present ocular condition(s) responsible for vision impairment. (If more than one, specify all but underline the one which probably first caused severe vision impairment.) O.D. _____
 O.S. _____
- B. Preceding ocular condition, if any, which led to present condition, or the underlying condition, specified in A. O.D. _____
 O.S. _____
- C. Etiology (underlying cause) of ocular condition primarily responsible for vision impairment. (e.g., specific disease, injury, poisoning, heredity or other prenatal influences.) O.D. _____
 O.S. _____
- D. If etiology is injury or poisoning, indicate circumstances and kind of object or poison involved. _____

IV. PROGNOSIS AND RECOMMENDATIONS

- A. Is pupil's vision impairment considered to be: Stable _____ Deteriorating _____ Capable of improvement _____ Uncertain _____
- B. What treatment is recommended, if any? _____
- C. When is reexamination recommended? _____
- D. Glasses: Not needed _____ To be worn constantly _____ For close work only _____ Other (specify): _____
- E. Lighting requirements: Average _____ Better than average _____ Less than average _____
- F. Use of eyes: Unlimited _____ Limited, as follows: _____
- G. Physical activity: Unrestricted _____ Restricted, as follows: _____

TO BE FORWARDED BY EXAMINER TO:

Date of examination _____
 Signature of examiner _____ Degree _____
 Address _____
 If dial case: Number _____ Name of clinic _____

California State Department of Education
 Bureau for Physically Exceptional Children
 721 Capitol Mall
 Sacramento, California 95814

PREFERRED VISUAL ACUITY NOTATIONS

DISTANT VISION. Use Snellen notation with test distance of 20 feet. (Examples: 20/100, 20/60). For acuities less than 20/200 record distance at which 200 foot letter can be recognized as numerator of fraction and 200 as denominator. (Examples: 10/200, 3/200). If the 200 foot letter is not recognized at 1 foot record abbreviation for best distant vision as follows:

- HM HAND MOVEMENTS
- PLL PERCEIVES AND LOCALIZES LIGHT IN ONE OR MORE QUADRANTS
- LP PERCEIVES BUT DOES NOT LOCALIZE LIGHT
- No LP NO LIGHT PERCEPTION

NEAR VISION. Use standard A.M.A. notation and specify best distance at which pupil can read. (Example: 14/70 at 5 in.)

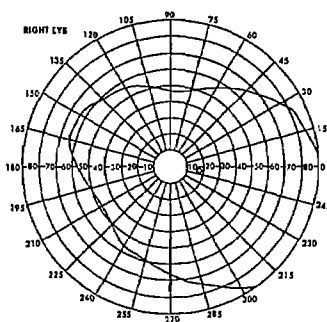
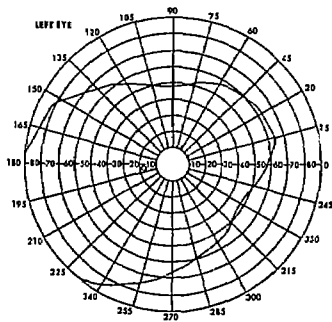
TABLE OF APPROXIMATE EQUIVALENT VISUAL ACUITY NOTATIONS

These notations serve only as an indication of the approximate relationship between recordings of distant and near vision and point type sizes. The teacher will find in practice that the pupil's reading performance may vary considerably from the equivalents shown.

Distant Snellen	Near			% Central Visual Efficiency for Near	Point	Usual Type Text Size
	A.M.A.	Jagger	Metric			
20/20 (ft.)	14/14 (in.)	1	0.37 (mm.)	100	3	Mail order catalogue
20/30	14/21	2	0.50	95	5	Want ads
20/40	14/28	4	0.75	90	6	Telephone directory
20/50	14/35	6	0.87	50	8	Newspaper text
20/60	14/42	8	1.00	40	9	Adult text books
20/80	14/56	10	1.50	20	12	Children's books 9-12 yrs
20/100	14/70	11	1.75	15	14	Children's books 8-9 yrs.
20/120	14/84	12	2.00	10	18	Large type text
20/200	14/140	17	3.50	2	24	
12.5/200	14/224	19	6.00	1.5		
8/200	14/356	20	8.00	1		
5/200	14/560					
3/200	14/900					

FIELD OF VISION. Record results on chart below.

Type of test used: _____ Illumination in ft. candles: _____



Test object: Color(s) _____ Size(s) _____ Test object: Color(s) _____ Size(s) _____
 Distance(s): _____ Distance(s): _____

Permission for use granted by the National Society for the Prevention of Blindness, New York, New York 10016.

APPENDIX C Standard English Braille, Grade II

1st Line	{	a	b	c	d	e	f	g	h	i	j
2nd Line	{	k	l	m	n	o	p	q	r	s	t
3rd Line	{	u	v	x	y	z	and	for	of	the	with
4th Line	{	ch	gh	sh	th	wh	ed	er	ou	ow	w
5th Line	{	'ea	;be	:con	.dis	en	!	()	“	?”	in
6th Line	{	Fraction-line sign st	ing	Numeral sign ble	Poetry sign ar	Apostrophe	Hyphen	com			
7th Line	{	Accent sign		Italic or decimal point sign	Letter sign	Capital sign					
Used in forming contractions:		c	d	f	g	h	i	j			