

College
and
University
Programs for the Preparation
of Teachers of
Exceptional Children

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QUALIFICATION AND PREPARATION OF TEACHERS OF EXCEPTIONAL CHILDREN

Conducted by the Office of Education with the special cooperation of the
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Such a large number of people contributed to the preparation of this bulletin that it is truly a cooperative venture. College and university presidents assisted by giving the names of persons in charge of their special education programs. Faculty members supplied data through inquiry forms and correspondence. During the months that this publication has been under preparation, college staff members contributed by checking preliminary tables and manuscript. To these people, much appreciation is due. Gratitude is expressed especially to Dr. Frances P. Connor for reading of drafts and for making suggestions for their improvement.

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Foreword

PARALLELING the rapid development of school services for the Nation's exceptional children has come an ever-increasing demand for teachers qualified to work with these children. This has placed added responsibility on colleges and universities to prepare special education personnel. As school administrators search for specialists, they ask: "What collegiate institutions are preparing teachers of handicapped and gifted children?" Prospective teachers, in turn, say "Where can I find a college or university that will give me the opportunity for the professional preparation I need?"

This bulletin is a report on certain aspects of college and university programs for the preparation of special education personnel. In this publication, no attempt is made to evaluate the quality of these programs. Instead, it gives an overview of current opportunities in the United States for the preparation of special education teachers, and reports some status information on programs now in operation.

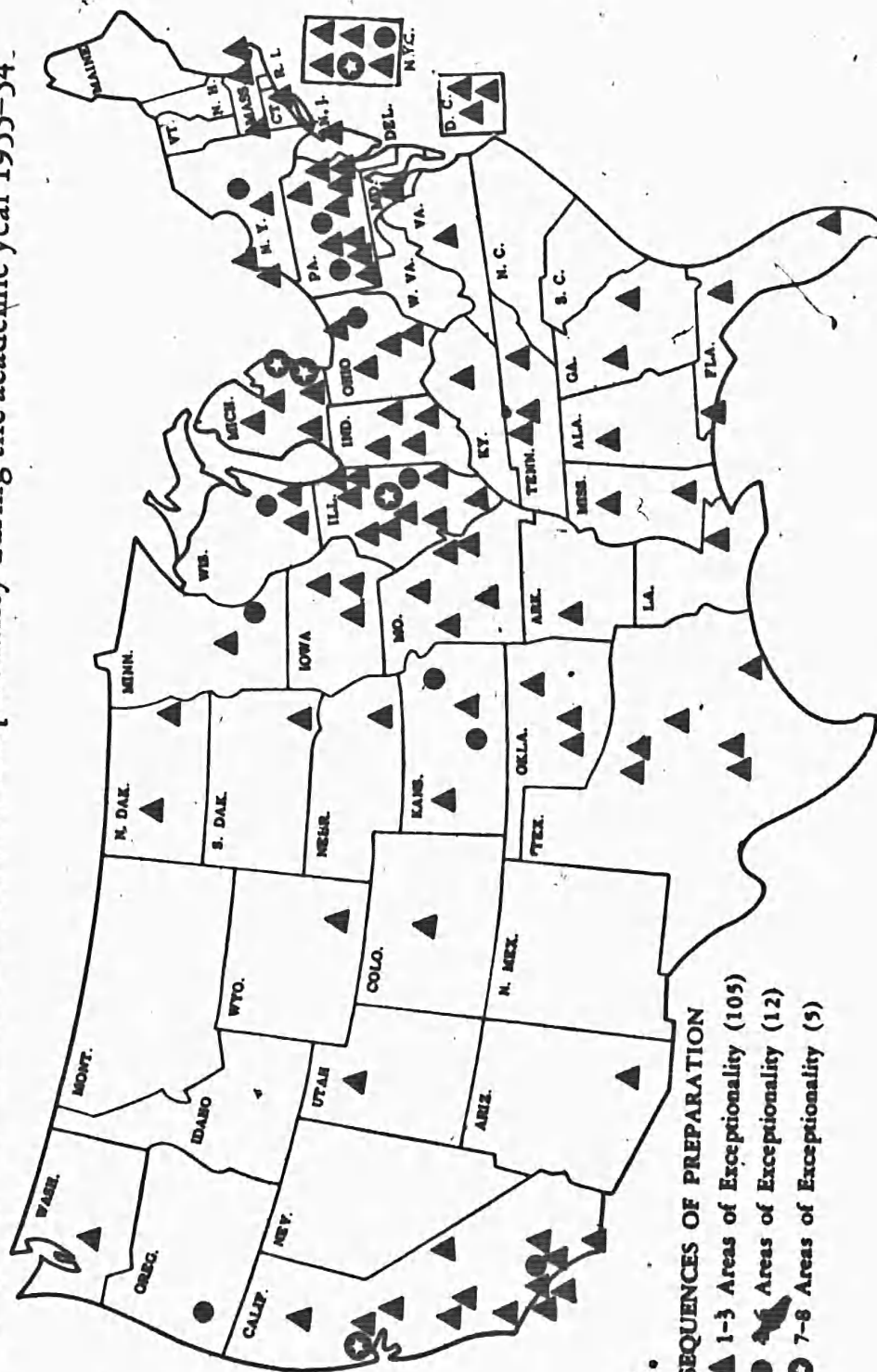
This is the fourth nationwide study on special teacher preparation which the Office of Education has conducted, or in which the Office has contributed through collaboration. An historical review of prior investigations made in 1931, 1936, and 1949 can be found in "Opportunities for the Preparation of Teachers of Exceptional Children," published by the National Society for Crippled Children in 1949. Each of the foregoing studies includes a list of institutions having some professional preparation for teachers of handicapped children. In each succeeding study the standards for an integrated program have become higher. Even so, the number of colleges and universities offering a sequence of preparation has steadily mounted. For the regular academic year 1953-54, 122 institutions of higher learning reported sequences of preparation in one or more areas of exceptionality. The purpose of this bulletin is to furnish information on these programs.

Efforts have been made in this publication to provide information which will aid prospective teachers in the selection of a center for their specialized preparation. Too, the data should be useful to colleges and universities which are initiating or extending special education offerings. Finally, it should be helpful to State and local school administrators in their search for qualified educators to teach our Nation's 5,000,000 exceptional children.

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Map 1.—Location of the 122 colleges and universities which reported sequences of teacher preparation in one or more areas of exceptionality during the academic year 1953-54.



Teachers Are Needed

SCHOOLS, as never before, are providing educational opportunities for exceptional children. The development of special programs has progressed rapidly, but even so, much is yet to be done. It can safely be said that not more than a quarter of the Nation's handicapped and gifted children are receiving the special help which they need. In almost every case, the lack of qualified teaching personnel is the basic reason for this unfortunate situation. In many communities where public support is excellent and financing assured, school systems are unable to establish programs because they cannot find a teacher with the special competencies essential to effective work with the particular type of exceptional child for whom the service is to be established. The fact that this condition is so prevalent, especially in certain areas of exceptionality, places an obligation on colleges and universities to provide opportunities for the preparation of special education personnel.

Information In the Bulletin

This publication includes some information on the need for, and the status of, college and university programs for the professional preparation of special education personnel. The data presented will throw some light on such questions as the following: What children are considered educationally exceptional? How many such children are there? What is the extent of the teacher shortage in special education? What are some of the problems and limitations which colleges face in establishing and extending programs? Is there evidence of growth in teacher education programs? How many colleges and universities offered sequences of preparation in one or more areas of exceptionality during the regular academic year 1953-54? How are these institutions distributed geographically throughout the United States? How many students were enrolled in these sequences, and how many degrees were granted? What is the extent of teaching staff in these colleges? What are some of the courses listed in sequences of preparation?

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The Exceptional Child Defined

The term "exceptional" is used here to describe those boys and girls who have unusual educational needs. They are the children for whom the regular school program does not provide an environment conducive to their best possible development, or are those who are not able to attend school at all. About half of them have marked physical limitations, including blindness or partial vision, deafness or impaired hearing, crippling or special health conditions, or speech defects. The other half are either mentally handicapped or gifted, or are emotionally disturbed to a serious degree.



Courtesy, Cincinnati, Ohio, Public Schools

Impaired Vision Does Not Prevent This Child From Sewing

Large numbers of these children have multiple handicaps which are manifested by a variety of combinations of conditions. Examples of these are cerebral palsy accompanied by a speech handicap, and a crippling condition combined with giftedness.

The Number of Exceptional Children

When administrators of colleges and universities are considering the establishment of programs to prepare special education personnel, they recognize that this is a field which merits attention because of the great

human need. Nevertheless, they face the practical problem of whether or not the number of exceptional children is large enough to warrant the financial investment necessary to maintain a worthwhile program for the preparation of special teachers.

No complete census has ever been made of the number of exceptional children in the United States. The best that can be done is to use the percentage of incidence based on spot studies made by national organizations and local communities. The figures are presented with some reluctance, since there is need for research to determine better estimates. If such investigations were to be undertaken, it would be important to take into consideration multiple deviations which occur in the same child. In the estimates which follow, it is assumed that the exceptional child is included *once*—under the major handicapping condition, although it is known that many of these children have secondary disabilities. For example, hard-of-hearing and cerebral-palsied children may also have speech handicaps. Taking into consideration such factors, it has been estimated¹ by one authority that at least 5 percent of the school population (as compared with 2 percent in the following data) are in need of help from speech correctionists.

A conservative estimate of the percentage of incidence, and the estimated number of children of school age, follows:

Areas of exceptionality	Percent of incidence	Estimated number of school-age children (in round numbers)
Visually handicapped	0.20	
Blind		10,000
Partially seeing		58,000
Crippled	1.50	510,000
Special health problems	1.50	510,000
Deaf and hard-of-hearing ¹	1.50	510,000
Speech-handicapped	2.00	680,000
Socially maladjusted	2.00	680,000
Mentally retarded	2.00	680,000
Gifted	2.00	680,000
Total	12.7	4,318,000

¹ Many studies have been made attempting to differentiate the deaf and hard-of-hearing. Because of variations in definitions, no attempt has been made here to provide separate incidence figures.

It seems safe to say that the number of exceptional children of school age in the United States is between 4 and 5 million. Accepting a minimal estimate of 12 or 13 percent (one-eighth) of the school-age population as exceptional, then this figure can be justified. The Bureau of the Census reported approximately 34,000,000 children between the ages of 5 and 17 in the United States for the year 1952. Using the percentage of incidence as 12.70, the number of exceptional children would be 4,318,000.

¹ Johnson, Wendell, and others. *Speech-Handicapped School Children*. New York, Harper and Brothers, 1948. 464 p.

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This, however, is not the complete story. To include only children in the age group 5 through 17 would not give an adequate picture of those in need of assistance from the schools. Many under age 6 should have help; others require it after 17. As is often pointed out, nursery schools and kindergartens are very important for such young children as the deaf and cerebral-palsied. At the other end of the age range, there is also need for more service from the schools. For example, many adolescents with handicaps drop out of school at a time when their social and vocational needs are greatest, simply because the school program is not adequate for them. Many of these youths would have profited from education extending beyond the 17-year-old level.

It is easy to see that the problem is large enough to command the interest, not only of State and local school systems, but also of colleges and universities and the citizenry as a whole.

The Teacher Shortage In Special Education

In the service of the Nation's schools there are perhaps 25,000 special teachers. The most recent Office of Education statistics¹ show 14,316 special education teachers in city school systems, an increase of 48 percent since 1947-48. In addition to these, there are approximately 3,000 teachers working in residential schools for the deaf, blind, and mentally retarded, and at least 2,500 giving hospital or home instruction. Still others not reported are employed by nursery schools and kindergartens, and in private schools. Another group works in small local school systems in rural areas. If allowance is made for the teachers not reported, the total number 25,000 is easily justifiable. Some of these teachers are well equipped professionally for service in their area of specialization; some are partially prepared; still others completely lack specialized preparation.

The literature in special education frequently suggests that at least 100,000 specialists (or four times the available number) would be required to staff the special day classes, hospitals, convalescent homes, and residential schools, and to provide the itinerant and consultative services needed.

When considering the establishment of special education programs in colleges and universities, administrators are interested in having some indication of the number of special teachers needed in each of the areas of exceptionality. It would be excellent if it were possible to provide this information accurately. Because of variability of teaching load, varying degrees of handicapping conditions, individual community problems, and

¹ Mabel C. Rice and Arthur S. Hill. *Biennial Survey of Education in the United States, 1963-64, Chapter V, Statistics of Special Education for Exceptional Children, 1963-68*, Washington, U. S. Government Printing Office, 1964, p. 16.

the many types of specialists needed, no firm estimates can be made. However, on the basis of the incidence figures and these factors, it is evident that many more teachers would be required for the mentally retarded, speech-handicapped, or crippled, for example, than for the blind or deaf.

It is particularly difficult to estimate the number of specialists who should be available to work with the gifted and the emotionally disturbed.



Courtesy, Louisville, Ky., Public Schools

Teacher Helps Child Learn Means of Communication.

The educational needs of these two types of children are met in various ways, and there are differing points of view concerning the kinds of programs which serve them most effectively.

It is probable that the teacher-need figure of 100,000 should be reexamined. One example will serve to illustrate this. On a basis of an average special class enrollment of 18, it seems reasonable to estimate that approximately 40,000 teachers are needed in the area of the mentally retarded alone. This leaves only 60,000 for all of the other types of exceptionality and for personnel who would occupy administrative and college teaching positions. Many exceptional children are—and should be—enrolled for all or part of their schooling in regular classes with so-called normal children. Because of this, many educational leaders believe that the regular classroom teacher should have more understanding of the special needs of handicapped and

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gifted children. If this view is generally accepted, the colleges and universities of the Nation have still another responsibility in teacher-education.

Availability of Teachers

How many requests are received by school administrators and college staff members for the various types of special educators? How easy or how difficult is it to secure these specialists? These questions were asked of special education personnel in State and local school systems and in colleges and universities throughout the Nation. Their replies give an indication of the availability of teachers in the various areas of exceptionality. A total of 329 persons participated in giving this information. Of that number, 101 were directors or supervisors of special education in State departments of education, 154 were supervisors of special education in local school systems, and 74 were instructors in colleges and universities preparing teachers of exceptional children. The replies from these groups were so similar that they are reported as one.

The frequency of requests for qualified teachers of exceptional children is reported in the following table. The 10 areas are listed in rank order according to the volume of requests received by State, local, and college personnel.

<i>Area of exceptionality</i>	<i>Rank order (frequency of requests)</i>
Mentally retarded	1
Speech-handicapped	2
Deaf	3
Hard-of-hearing	4
Crippled	5
Socially maladjusted	6
Blind	7.5
Partially seeing	7.5
Special health problems	9
Gifted	10

1 Most requests.

10 Least requests.

It will be seen that the greatest demand is for teachers of the mentally retarded and for speech-correctionists. Next in order are requests for teachers of the deaf and hard-of-hearing, followed by the crippled and emotionally disturbed. The least number of requests is for teachers of the gifted, and teachers of children with special health problems. Requests are relatively few for teachers of the blind, and of the partially seeing.

The *availability* of teaching personnel was also reported. The 329 special educators were asked to indicate whether it was "very difficult," "rather difficult," or "not difficult" to secure teachers for each of the 10 areas of exceptionality. When these data were pooled, the following table resulted:

Area of exceptionality	Rank order (difficulty in securing teachers)
Deaf	1
Blind	2
Socially maladjusted	3
Mentally retarded	4
Hard-of-hearing	5
Partially seeing	6
Gifted	7
Crippled	8
Special health problems	9
Speech correction	10

1 Most difficult.
10 Least difficult.

School administrators and college staff members are finding it most difficult to secure teachers of the deaf. Specialists trained in the education of the blind and socially maladjusted also seem to be relatively scarce. Moderate difficulty is encountered in locating teachers of the mentally retarded and hard-of-hearing. The respondents reported that teachers of the partially seeing, the gifted, and the crippled are not as difficult to secure. Teachers of children with special health problems are in the same category. Speech correctionists seem to be the most available, but even so the demand for speech correctionists far exceeds the supply.

A comparison of the *requests* for teachers and their *availability* is both interesting and significant. There are few requests, for example, for teachers of the partially seeing and for teachers of the blind, but even so, it is rather difficult to find qualified persons in these areas when they are needed. As would be expected, there are many requests for teachers of mentally retarded children and for those with speech defects. Although the two areas are comparable in the number of requests for teachers, there is no similarity in the number of specialists available in each. Teachers of the mentally retarded are among the most difficult to secure, while speech-correctionists seem to be relatively plentiful. Further analysis of the two tables will suggest guidelines for college and university staff members who wish information on the supply and demand of special education personnel.

★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★

★ Overview of Opportunities for Preparation ★ ★ of Teachers of Exceptional Children ★ ★ Academic Year 1953-54 ★

★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★

ADMINISTRATORS of teacher-education programs and prospective teachers ask: What colleges and universities are now preparing teachers of exceptional children? In which areas of exceptionality do they have programs? The major purpose of this section of the bulletin is to give the inquirer a basis for answering these questions.

The Basis for Reporting In This Study

As part of the larger study, "Qualification and Preparation of Teachers of Exceptional Children,"¹ colleges and university staff members in the Nation were asked to supply information on their special education programs.

Throughout the broad study, as well as for this publication, the definition of a "sequence of preparation" which was adopted by the advisory committee for the 1949 study² was used. In the 1949 study the threefold criterion had been defined as:

A sequence of specialized preparation involves three courses or at least 9 to 12 semester hours of specialized preparation made up of (1) a study of the characteristics (physical, mental, and emotional) of the particular condition under consideration; (2) a study of the teaching methods and curriculum adjustment needed; (3) observation and student teaching practicum in the specialized area.³

Using this definition, effort was made to determine what collegiate institutions offered a sequence of preparation in particular areas. The study was further delimited to include only centers which provided sequences in one or more areas of exceptionality during the "regular academic year."

Before talking about the colleges and universities which offer complete sequences of preparation during the regular academic year, it must be em-

¹ A description of this project can be found in appendix A.

² National Society for Crippled Children and Adults, Inc., *Opportunities for the Preparation of Teachers of Exceptional Children* (a cooperative study sponsored jointly by the National Society and the U. S. Office of Education). Chicago, National Society for Crippled Children and Adults, Inc., 1949. 99 p.

³ *Ibid.*, p. A.

phasized that hundreds of institutions which did not meet the threefold criterion are also contributing to the preparation of teachers of the handicapped. Some offer programs which are not complete sequences; others offer one or more single courses; still others have integrated curricula but offer all or part of these sequences at summer school sessions. The value of these courses and experiences must not be discounted for many of them contribute to the preparation of teachers, as well as other special education personnel.



Courtesy, Nashville, Tenn., Public Schools

The Teacher Brings School Into The Hospital.

It would have been particularly desirable to include summer workshops and summer courses for exceptional children since they play a vital role, especially in recruiting teachers. Frequently, however, they are not a part of an ongoing program. For example, a workshop in cerebral palsy may be given one summer and not another. It was therefore decided to report only on regular academic year programs, although the importance of these others cannot be minimized.

Method of Collecting Information.

Using the threefold criterion, careful attention was given to the matter of finding those colleges and universities which do offer a sequence in one or more areas of exceptionality during the academic year. A number of

procedures were used for collecting this information. Chief among these were: (1) Directors and supervisors of special education in State departments of education were asked to give a list of colleges and universities in their own States which they believed offered sequences of preparation; (2) all the colleges and universities reported in the 1949 study as offering sequences of preparation (77 in all) were put on the mailing list and given opportunity to indicate whether or not they still had integrated programs; (3) preliminary lists were presented to the members of the Teacher-Education Council of the International Council for Exceptional Children, and to other national organizations for suggested additions and deletions; (4) college and university catalogs were perused for leads; (5) numerous personal inquiries were made.

An inquiry form was sent to all colleges and universities where there appeared to be any possibility of a special education program. Care was taken to point out the threefold criterion of a sequence of courses. The institutions were then asked to indicate the areas of exceptionality in which they offered such sequences during the academic year. The original data were collected in the year 1952-53, but a recheck was made in 1953-54, since there is constant change in college offerings.

While much care was taken to compile complete listings, it is likely that some centers which actually offer sequences have been missed. This would be especially true in the area of speech correction where the administration of programs may be in departments other than education. It is believed, however, that the data are relatively complete and accurate in all areas except for speech-correctionists and for speech and hearing specialists.

General Findings

For the academic year 1953-54, 122 of the Nation's colleges and universities reported sequences of teacher preparation in one or more areas of exceptionality. These institutions, and the sequences offered, are listed in table 1. Also included in this table is comparative information from the 1949 study.⁴ Recorded for each of the areas is the number of centers which offered sequences in 1949 and in 1953-54.

The 122 centers with integrated programs today represent an increase of 45 institutions (58 percent) over the 77 reported in 1949.⁵ The 1949 study, however, included sequences offered during summer school sessions. Thus, it is seen that gains have been even greater in the last 5 years than the figures would suggest.

Little is known about the actual quality of the programs. Furthermore, it was not within the scope of this study to make an evaluation of the

⁴ Ibid., p. 4.

⁵ Ibid., p. 4.

quality of programs of teacher preparation. Techniques other than those employed in this project would be needed for such evaluation.

There are more opportunities for the preparation of teachers of the physically and mentally handicapped than there are for those who wish to work with the emotionally disturbed and the gifted. More colleges (or 115) offer preparation for speech-correctionists than for teachers in any other area of exceptionality. In the closely allied field of the hard-of-hearing there are 68 sequences. A large number of centers have combined programs which equip a teacher to work both as a speech-correctionist and as a hearing specialist. Twenty-two colleges and universities prepare teachers in the somewhat related area of the deaf. More will be said about the programs in these fields. As is to be expected, because of the size of the problem, many colleges have integrated curricula in mental retardation. In all, there are 40 programs of this type. In contrast only 2 centers meet the criterion for a sequence of preparation in the field of the gifted and only 3 in the blind.

The rapid increase in number of centers with programs is viewed by many with both satisfaction and concern. Satisfaction comes from the recognition of the need for qualified persons to teach the Nation's handicapped and gifted children. Concern stems from the recognition of the need for evaluation of the facilities which should be available at colleges planning to develop programs. Later publications coming from the broader study will provide some information which will form a basis for planning.

Table 1.—Areas of Exceptionality in Which Colleges and Universities Reported Sequences of Preparation for Teachers of Exceptional Children During the Academic Year 1953-54

State and institution	Blind	Partially seeing	Crippled	Special health problems	Deaf	Hard-of-hearing	Speech-handicapped	Socially mal-adjusted	Mentally retarded	Gifted
1	2	3	4	5	6	7	8	9	10	11
Number of institutions reporting sequences 1953-54 (exclusive of summer sessions) (122)	3	6	13	5	22	68	115	10	40	2
Number of institutions reporting sequences 1949 (including summer school sequences) (77)	7	8	8	0	17	25	66	4	22	0
ALABAMA (1) ^a										
University of Alabama (University)							X			
ARIZONA (1)										
University of Arizona (Tucson)						X	X			
ARKANSAS (1)										
University of Arkansas (Fayetteville)							X			
CALIFORNIA (15)										
Chico State College (Chico)										
College of the Pacific (Stockton)						X	X	X		
Fresno State College (Fresno)						X	X			
Los Angeles State College (Los Angeles)					X	X	X		X	
Occidental College (Los Angeles)						X	X			
San Diego State College (San Diego)							X		X	

See Addenda for Alabama.

See footnotes at end of table.

Table 1.—Areas of Exceptionality in Which Colleges and Universities Reported Sequences of Preparation for Teachers of Exceptional Children During the Academic Year 1953-54—Continued

State and institution	Blind	Partially seeing	Crippled	Special health problems	Deaf	Hard-of-hearing	Speech-handicapped	Socially mal-adjusted	Mentally retarded	Gifted
1	2	3	4	5	6	7	8	9	10	11
ILLINOIS (11)—Continued										
Rockford College (Rockford)						X	X			
Southern Illinois University (Carbondale)						X	X		X	
University of Chicago (Chicago)							X	X		
University of Illinois (Urbana)					X	X	X		X	
INDIANA (4)										
Ball State Teachers College (Muncie)						X	X			
Indiana State Teachers College (Terre Haute)						X	X		X	
Indiana University (Bloomington)						X	X			
Purdue University (Lafayette)						X	X			
IOWA (3)										
Grinnell College (Grinnell)							X			
Iowa State Teachers College (Cedar Falls)						X	X			
State University of Iowa (Iowa City)			X			X	X			
KANSAS (4)										
Fort Hays Kansas State College (Hays)							X			
Kansas State Teachers College (Emporia)							X			
Municipal University of Wichita (Wichita)			X		X	X	X	X	X	
University of Kansas (Lawrence and Kansas City)					X	X	X	X	X	

KENTUCKY (1)											
University of Kentucky (Lexington)											
LOUISIANA (1)											
Louisiana State University (Baton Rouge)											
MARYLAND (1)											
University of Maryland (College Park)											
MASSACHUSETTS (3)											
Boston University (Boston)											
Emerson College (Boston)											
Smith College (Northampton)											
MICHIGAN (6)											
Central Michigan College of Education (Mount Pleasant)											
Michigan State College (East Lansing)											
Michigan State Normal College (Ypsilanti)											
University of Michigan (Ann Arbor)											
Wayne University (Detroit)											
Western Michigan College of Education (Kalamazoo)											
MINNESOTA (2)											
State Teachers College (St. Cloud)											
University of Minnesota (Minneapolis)											
MISSISSIPPI (2)											
Mississippi Southern College (Hattiesburg)											
University of Mississippi (University)											

See footnotes at end of table.

Table 1.—Areas of Exceptionality in Which Colleges and Universities Reported Sequences of Preparation for Teachers of Exceptional Children During the Academic Year 1953-54—Continued

State and institution	Blind	Partially seeing	Crippled	Special health problems	Deaf	Hard-of-hearing	Speech-handicapped	Socially mal-adjusted	Mentally retarded	Gifted
1	2	3	4	5	6	7	8	9	10	11
MISSOURI (5)										
Central Missouri College (Warrensburg)							X			
St. Louis University (St. Louis)							X			
Southwest Missouri State College (Springfield)							X			
University of Missouri (Columbia)					X	X	X			
Washington University (St. Louis)					X	X	X			
NEBRASKA (1)										
University of Nebraska (Lincoln)						X	X			
NEW JERSEY (1)										
New Jersey State Teachers College (Newark)						X	X		X	
NEW YORK (10)										
Brooklyn College (Brooklyn)							X		X	
City College of the City of New York (New York)	X	X	X	X	X	X	X		X	X
Hunter College of the City of New York (New York)							X		X	
New York University (New York)							X		X	
Queens College of the City of New York (Flushing)							X		X	
State University of New York College for Teachers (Buffalo)			X			X	X		X	
State University of New York Teachers College (Geneseo)		X	X		X	X	X		X	
Syracuse University (Syracuse)					X	X	X		X	

See Addenda for Missouri, New York, North Carolina, and Oklahoma.

Table 1.—Areas of Exceptionality in Which Colleges and Universities Reported Sequences of Preparation for Teachers of Exceptional Children During the Academic Year 1953-54—Continued

State and institution	Blind	Partially seeing	Crippled	Special health problems	Deaf	Hard-of-hearing	Speech-handicapped	Socially mal-adjusted	Mentally retarded	Gifted
1	2	3	4	5	6	7	8	9	10	11
SOUTH DAKOTA (1)										
University of South Dakota (Vermillion)						X	X			
TENNESSEE (3)										
George Peabody College for Teachers (Nashville)						X	X		X	
University of Tennessee (Knoxville)					X	X	X			
Vanderbilt University (Nashville)						X	X			
TEXAS (6)										
North Texas State College (Denton)							X			
Southern Methodist University (Dallas)							X			
Southwest Texas State Teachers College (San Marcos)			X				X		X	
Texas State College for Women (Denton)							X			
University of Houston (Houston)						X	X		X	
University of Texas (Austin)						X	X		X	
UTAH (1)										
University of Utah (Salt Lake City)					X	X	X			
VIRGINIA (1)										
University of Virginia (Charlottesville)						X	X			

WASHINGTON (1)									
University of Washington (Seattle).....									
WISCONSIN (3)									
Marquette University (Milwaukee).....									
University of Wisconsin (Madison).....									
Wisconsin State College (Milwaukee).....									
WYOMING (1)									
University of Wyoming (Laramie).....									
DISTRICT OF COLUMBIA (3)									
Catholic University of America (Washington).....									
Gallaudet College (Washington).....									
George Washington University (Washington).....									

¹ The term "crippled" includes cerebral palsy, poliomyelitis, amputations, paraplegia, congenital anomalies, and other orthopedic conditions.

² The term "special health problems" includes cardiac conditions, epilepsy, endocrine disorders, cosmetic defects, and below-par conditions.

³ National Society for Crippled Children and Adults, *Opportunities for the Preparation of Teachers of Exceptional Children* (a cooperative study sponsored jointly by the National Society and the U. S. Office of Education), Chicago, National Society for Crippled Children and Adults, Inc., 1949. 99 p.

⁴ Number of institutions in the State reporting sequences.

¹ Sequence of preparation for speech-correctionists, plus a combined sequence for speech and hearing specialists.

² Combined sequence for speech and hearing specialists only; no sequence to prepare speech-correctionists.

³ Combined sequence.

⁴ Students spend their first 3 years at Syracuse University, and attend the Clarke School for the Deaf for their last year so as to meet the certification standards of the Conference of Executives of American Schools for the Deaf.

Geographic Distribution

The widespread effort to provide professional preparation for teachers of exceptional children is graphically shown on page VIII. Here the reader can see the States in which the largest number of collegiate institutions have special education programs. The major concentrations are in those States touching the Great Lakes and in California. Colleges tend to be located in the areas where the population is most dense and in regions where the most extensive special education programs have developed.

California, Illinois, Pennsylvania, and New York have more training centers than any other States. California leads the list with 15 institutions of higher learning offering a sequence of preparation in at least one area of exceptionality. Pennsylvania and Illinois each have 11 and New York has 10 centers. Additional information on the extent of programs is given on the map. Colleges and universities are reported according to the number of areas of exceptionality in which they reported sequences. The star on the map indicates that a college has sequences of preparation in 7 or 8 areas; the circle, sequences in 4 to 6 areas; and the triangle from 1 to 3 areas of exceptionality. No college reported sequences in more than 8 areas.

Only 5 institutions have sequences in 7 or 8 areas. These are: Wayne University in Detroit, Michigan State Normal College, San Francisco State College, Illinois State Normal University, and Hunter College of the City of New York. Each of these centers has a director in charge of its special program.

Most of the 12 institutions offering sequences in 4 to 6 areas of exceptionality are found in the Middle Atlantic and Midwestern States. Two others are on the west coast (1 in Oregon and 1 in California). Three States—Kansas, New York, and Pennsylvania—have 2 such institutions within their borders. No center in the Rocky Mountain region or in the Southeastern States offers sequences in more than 3 areas. A number of centers with sequences in 4 to 6 areas also have directors of special education.

The 105 colleges preparing teachers in 1 to 3 areas of exceptionality are scattered throughout the Nation. In many instances there are several such institutions in one State. For example, California, Illinois, Michigan, New York, Ohio, Pennsylvania, and Texas each has 4 or more centers offering sequences in 1 to 3 areas. In a majority of cases, these centers have sequences only in speech and hearing. Few of these programs have special education directors, and when they do they are usually on a part-time basis. In most cases the staff membership is limited to only 1 or 2 full-time persons. Frequently these programs depend upon the part-time services of college staff members or professional persons employed by other community agencies.

★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★

★ Opportunities for the Preparation of ★
★ Teachers in the Specialized Areas ★

★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★

THE PREVIOUS SECTION gave an overview of institutions which offer integrated curricula for special education personnel, their geographical location, and the areas in which each center reported sequences. In this section information will be given on programs in the specific areas of exceptionality.

Preparation of Teachers of the Visually Handicapped

For educational purposes, children with visual handicaps should be thought of as belonging to one of two groups: Those who are functionally blind and those who are partially seeing. Children in the former group learn through sense avenues other than sight. Those in the latter usually have enough vision to be educated as seeing persons, although special equipment and teaching methods are essential. Obviously the specialized preparation needed by teachers of the blind will be different from that required for teachers of the partially seeing. For this reason, one finds colleges offering distinct and separate curricula in the two areas of exceptionality. Centers having sequences to prepare teachers of the blind and teachers of the partially seeing are reported in table 1, beginning on page 12. The location of these institutions is shown in map 2 on page 24.

Teachers of the Blind

Except for the gifted, fewer institutions offer sequences of preparation for teachers of the blind than for teachers in any other area of exceptionality. Only three centers have sequences. On the basis of incidence of blindness, this is possibly to be anticipated. Numerically, the blind make up the smallest group of exceptional children. It was estimated (see page 3) that there are approximately 10,000 school-age blind children in the Nation.



Cantury, Newtonville, Mass., Public Schools

Blind Children Attend a Regular Day School.

The occurrence of blindness in children had been decreasing for a number of years, but recently this trend has reversed itself. There is now considerable increase in blindness among premature babies due to a condition known as retrolental fibroplasia. Children having this condition are already beginning to place an increasing responsibility on the schools. This fact, combined with the inadequate supply of teachers suggests the possible need for additional opportunities for the preparation of teachers of the blind.

In the last 5 years, a change has taken place in the number of institutions with specialized curricula for teachers of the blind. During the 1949 calendar year, 7 centers were offering sequences, as compared with 3 in the academic year 1953-54. Preparation is still being offered at 2 of the 7 institutions which reported in 1949. These are: (1) Hunter College of the City of New York, and (2) Perkins Institution (Massachusetts School for the Blind), which has recently changed its affiliation from Harvard to Boston University. The other center, San Francisco State College, now offering preparation, did not report such a sequence in 1949.

The American Foundation for the Blind has been contributing to the preparation of teachers of the blind by sponsoring workshops during summer sessions in several colleges and universities. In 1952, such a workshop was offered at San Francisco State College. In the summer of 1953, another was conducted at George Peabody College for Teachers. In the summer of 1954, workshops were held, with the aid of the Foundation, at Syracuse University, the University of Texas, and the University of Cincinnati.

Teachers of the Partially Seeing

There are more school-age children with partial vision than with blindness. In many localities in the United States, educational programs for the partially seeing are being reviewed, and some experimental work is being done to try to determine the types of school organization which best serve these children. There seems to be common agreement that teachers with specialized preparation are needed, regardless of whether partially seeing children are taught in self-contained classrooms, in divided day school programs, or under an itinerant teacher plan.

The preparation of teachers of the partially seeing is of concern, not only to colleges and universities and to State and local departments of education, but also to the National Society for the Prevention of Blindness. Throughout the years, this Society has cooperated with colleges and universities in both the preparation of teachers and in research.

More colleges and universities offer preparation for teachers of the partially seeing than for teachers of the blind. In the current study, 6¹ centers reported a sequence of preparation, as compared to 8 in 1949. It should be recalled that the 1949 figures include summer programs, some of which are still being offered. Summer programs are not reported in the current findings, it is to be remembered.

¹ See Addenda for the seventh sequence reported after the bulletin was in press.



Cowsey, Nashville, Tenn., Public Schools

Partially Seeing Boy Uses Large Type Dictionary.

Map 2.—Location of the colleges and universities which reported sequences of preparation for teachers of the visually handicapped during the academic year 1953-54



Reference to map 2 shows that there are 2 colleges in Michigan with sequences in this area. They are Michigan State Normal College and Wayne University. Two more of the 6 centers, Hunter College and Syracuse University, are located in New York State. The remaining two are San Francisco State College and Illinois State Normal University.

Opinions expressed on the availability of teachers for the partially seeing may have bearing on the planning of teacher education programs. It was reported on page 6 that special education personnel have few requests for such teachers, but that they are moderately difficult to secure when they are needed.

Teachers of Children With Crippling Conditions and Special Health Problems

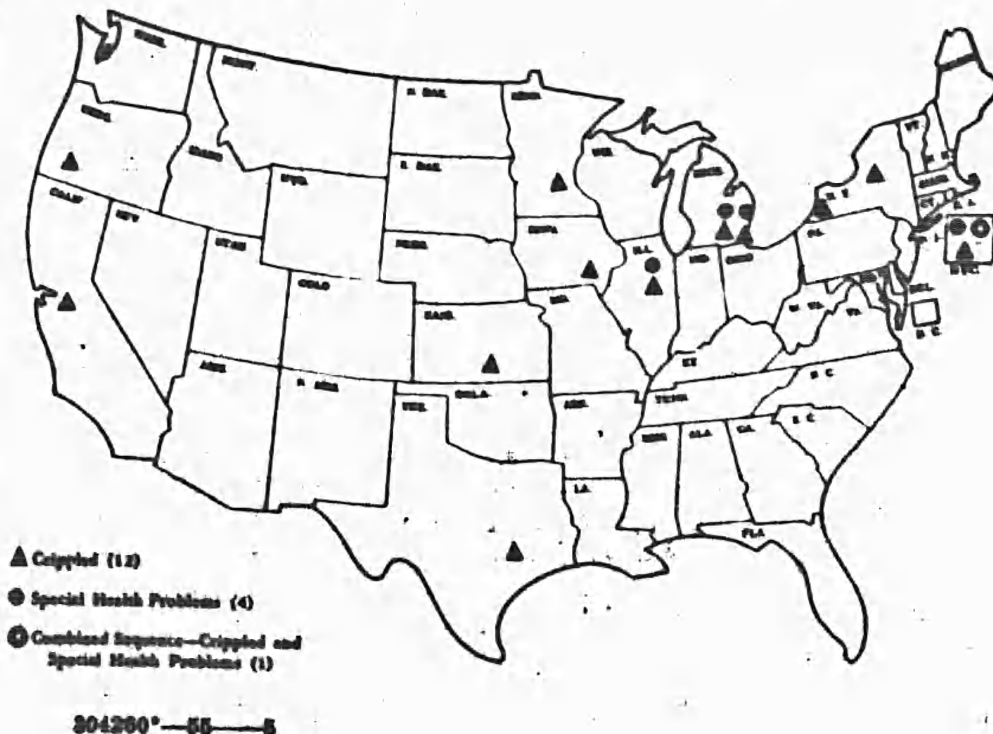
Nearly one-fourth of all educationally exceptional children either are crippled or have some special health problem. In the study, "Qualification and Preparation of Teachers of Exceptional Children," these two groups are considered in separate categories. In practice, however, there is some overlapping, due mainly to two factors. First, definitions are not uniform throughout the Nation in either of these areas; second, educational adjustments and special services for these children are often identical or so similar that they may be administered in one program rather than in two.

There is a more common understanding of what is meant by "crippling conditions" than "special health problems." For example, it is generally accepted that children with cerebral palsy, infantile paralysis, congenital anomalies, and miscellaneous orthopedic conditions are "crippled." The term "special health problems," however, seems to be somewhat nebulous, and until recently was not in general use. Because there is need for an overall term "Children with special health problems" has been used to include those with such conditions as cardiac limitations, epilepsy, diabetes, and chronic illness.

Teachers who plan to work with either or both of these groups may at different times in their careers find themselves instructing, not only in special day school classes, but also in hospitals, convalescent homes, sanatoria, or in the children's own homes. The largest single group of teachers will probably be working with crippled children in day schools; home teachers are most likely to have children from both groups. To illustrate the latter situation, a teacher, during a single day might instruct in the homes of 5 different children, 2 of whom might have cerebral palsy, 1 poliomyelitis, and 2 others a history of rheumatic fever.

For several decades local school systems have been providing teachers for special day school classes and for home instruction; they are increas-

Map 3.—Location of the colleges and universities which reported sequences of preparation for teachers of the crippled and children with special health problems during the academic year 1953-54





Courtesy, Louisville, Ky., Public Schools

Group Activity Centers Around Teacher in the Hospital.

ingly employing teachers to work in hospitals, convalescent homes, and sanatoria. Because these teachers will work with children having many different types of physical deviations, school administrators are seeking persons who have the technical knowledge to understand the problems of each child. In addition, because pupils must be taught under several types of educational organization, such teachers should be equipped to work with allied professional groups and other community agencies involved in each child's care and rehabilitation.

Teachers of the Crippled

Thirteen colleges and universities offer a sequence of preparation for teachers of crippled children.¹ One of these—Teachers College, Columbia University—has a combined sequence in the areas of the crippled and special health problems. This represents a substantial increase over the 8 programs reported in 1949. The names and locations of the institutions are listed in table 1.

More than half of the colleges (see page 25) having such programs are located in four States bordering on the Great Lakes. This concentration is not surprising to those who are familiar with the history of day school educational provisions for the crippled, for it was in this region that much early public support was given to this type of program. The other centers

¹ See Addenda for the fourteenth sequence reported after the bulletin was in press.

are found in California, Iowa, Kansas, Oregon, and Texas, each of which has one institution with such a sequence.

Teachers of Children With Special Health Problems

Only four colleges are reported as having distinct and separate sequences of preparation for teachers of children with special health problems. No such sequences were listed in the 1949 report. The colleges currently offering preparation are: Illinois State Normal University, Michigan State Normal College, Wayne University, and Hunter College of the City of New York. As has been mentioned previously, one other institution, Teachers College, Columbia University, gives a combined sequence. All of these



Courtesy, Nashville, Tenn., Public Schools

Special Equipment Helps the Home Bound Child.

colleges are in States east of the Mississippi (see map 3). Without exception, each center also prepares teachers of the crippled. There is ample evidence that teachers working in hospitals and home instruction programs, even though they have many pupils who are neither orthopedic nor cerebral-palsied, secure their preparation in programs for teachers of the crippled.

While the number of colleges reporting programs in the area is small, four State departments of education certify teachers of children with

"special health problems."² Michigan and New Jersey use the term "children with lowered vitality." New York refers to the group as "cardiopathic," while Pennsylvania describes them as "convalescent, tubercular, and physically delicate." The trends, both in college preparation and certification practices should probably be studied further, since they have bearing on professional preparation and recruitment of teachers.

Teachers of Children Who Have Speech Handicaps and Hearing Impairment

The skills and abilities needed by teachers working with children who have speech and hearing impairments differ, but there appear to be some similar competencies required of both. The main problem in each of these areas of exceptionality is one of communication. It is generally recognized



Conroy, Nashville, Tenn., Public Schools

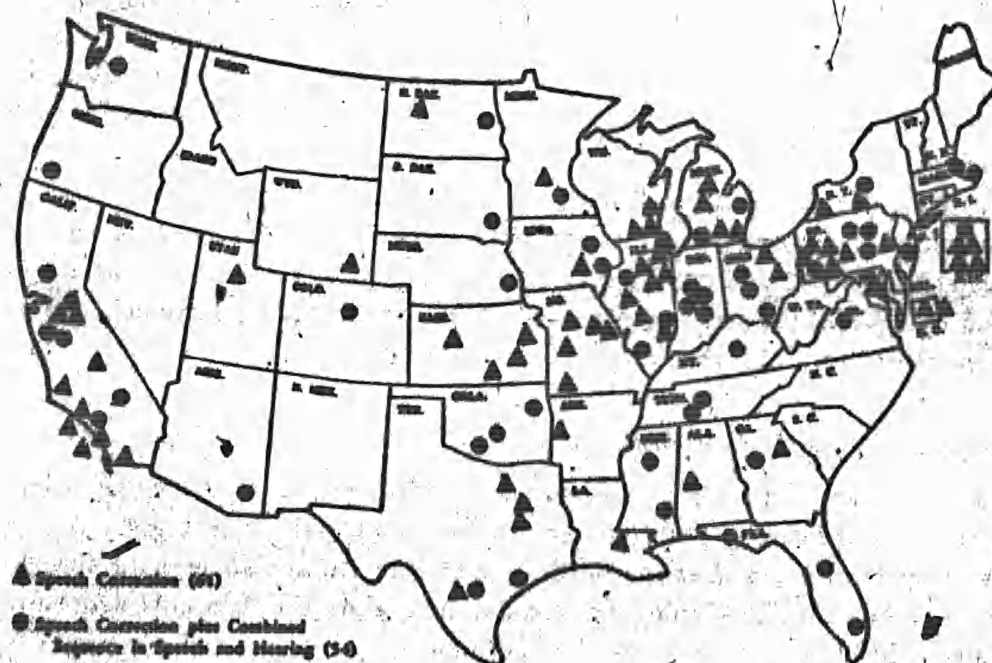
Teacher Helps Child With Hearing Impairment.

² Mackie, Romaine P. and Dunn, Lloyd M. *State Certification Requirement for Teachers of Exceptional Children*. Washington, U. S. Government Printing Office, 1954. (Office of Education, Bulletin 1954, No. 1. 60 p.)

that speech correctionists, speech and hearing specialists, teachers of the deaf, and teachers of the hard-of-hearing will need certain competencies in common. At the same time, they require knowledges and skills unique to their own fields of specialization. This overlap becomes evident from an examination of State certifying standards.³ Nine States have distinct and separate certification requirements for teachers of the deaf; 9 have credentials solely for teachers of the hard-of-hearing; and 9 have joint or combined certification plans for teachers of the deaf and hard-of-hearing. Twenty States issue certificates in the area of the speech handicapped, and 10 have joint standards for those who wish to teach the hard-of-hearing and speech-defective.

The deaf child is one who has not learned speech in the usual casual way, and therefore must be taught a means of communication. The hard-of-hearing child, on the contrary, generally has some speech patterns, although he will need help in developing and maintaining good speech and also in learning to use acoustic aids. Deaf children are usually taught in special classes in residential or day schools for at least a period of their schooling. Both hard-of-hearing and speech-defective children are, for the most part, taught by itinerant teachers, and in the majority of school systems are en-

Map 4.—Location of the colleges and universities which reported sequences of preparation for speech correctionists and speech and hearing specialists during the academic year 1953-54



³ Ibid., pp. 33-41.

rolled in regular classes. The major exception is in the case of the severely hard-of-hearing child who may be taught in a special class. All of these factors have significance in planning curricula for the preparation of the teachers who will work with children having these handicaps.

Teachers of Speech-Handicapped

It may be that the largest single group of educationally exceptional children comprises those with speech handicaps. Many authorities believe that the incidence figures provided on page 3 are too low. Certainly, when children with multiple handicaps are included this would be the case. The colleges have recognized the size of the problem for 115,⁴ or almost all of the 122 colleges reporting information, are presently preparing speech correctionists. As may be seen by reference to map 4, the 115 colleges are located in 35 States and the District of Columbia. The States with the largest number of such institutions are: California (15), Illinois (11), Pennsylvania (10), and New York (8).

The 115 collegiate institutions seem to prepare specialists under 3 plans. Sixty-one have distinct and separate programs for speech correctionists; 54 have a combined sequence in speech and hearing. Two of the colleges in the latter category prepare specialists only under the combined plan of speech and hearing. The general geographic location of colleges having distinct sequences in speech correction as compared with those having a combined program for speech and hearing specialists is shown on map 4 on page 29.

A number of these programs are in small colleges with an emphasis on undergraduate programs. From the statistics reported in appendix B, it appears that many prospective speech correctionists attend institutions where the whole special education program is in the hands of one or two staff members.

In view of rising professional standards, some of the colleges may wish to reexamine their curricular offerings with respect to staff, student-teaching, clinical facilities, and community resources. Many of the positions occupied by speech and hearing specialists seem to call for skills which can be gained only in a rich and varied curriculum.

Teachers of the Hard-of-Hearing

Distinct and separate programs for teachers preparing to work solely with hard-of-hearing children are conducted by only 9 colleges. All of these also train teachers of the deaf, and 8 of them also prepare speech-correctionists. The 9 colleges referred to here are in the States of California, Kansas, Michigan, New York, and Illinois.

By far the largest number of colleges preparing teachers of the hard-of-

⁴See Addenda for additional sequence reported after the bulletin was in press.

hearing do so through a curriculum combining two or more areas of exceptionality. For example, 54 of the 68 colleges reported combined courses in the area of the hard-of-hearing and speech-handicapped (see map 4). Of the remaining 14, as previously mentioned, 9 have a distinct and separate sequence for teachers of the hard-of-hearing, while 5 have a combined sequence for teachers of the deaf and hard-of-hearing (see map 5).

Teachers of the Deaf

The education of the deaf is one of the oldest aspects of special education, dating back to the early 19th century. There are 22 colleges and universities which offer sequences for teachers in this area of exceptionality. Of these, 17^a have sequences specifically for teachers who wish to work with deaf children (see map 5). In interpreting these figures, it should be remembered that the number of profoundly deaf children is small in relation to the total school population. It is important to realize, however, that the teacher-pupil ratio in classes for the deaf is usually low—in some instances not more than 1 to 5. This factor should be considered when estimating the need for teachers in this area of exceptionality.

The 17 colleges and universities (see map 5 and table 1) which have a distinct and separate sequence for teachers of the deaf are to be found in 8

Map 5.—Location of the colleges and universities which reported sequences of preparation for teachers of the acoustically handicapped during the academic year 1953-54



^a See Addenda for additional sequences reported after the bulletin was in press.

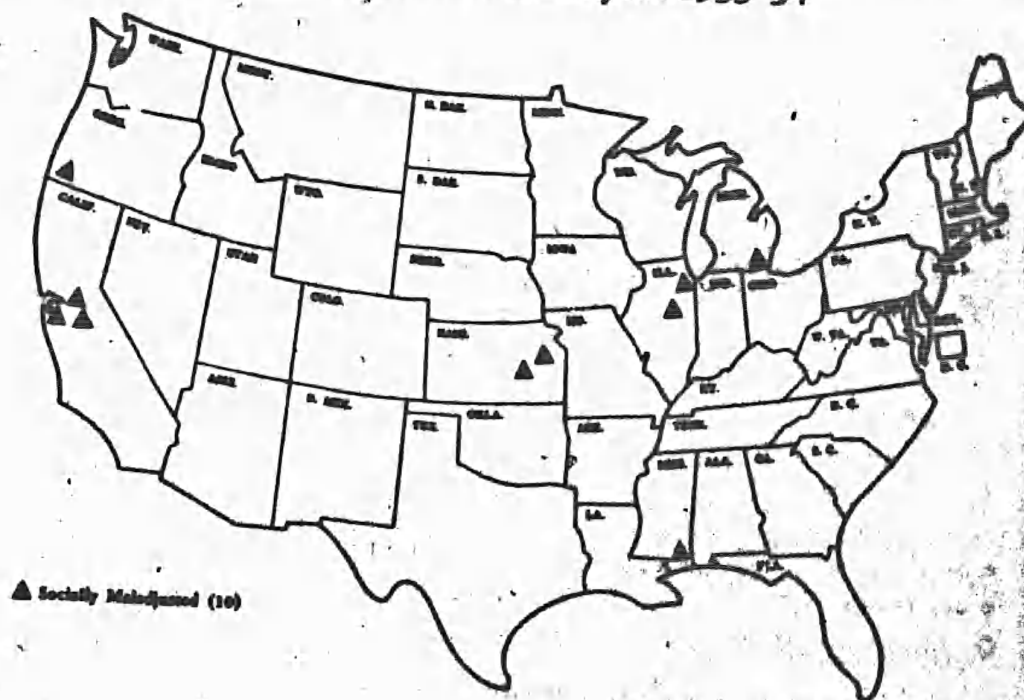
States and the District of Columbia. Three are in California; 2 centers each are in Kansas, Illinois, and Michigan; and 4 are in New York State. The remaining 4 institutions are located in the District of Columbia, Massachusetts, Pennsylvania, and Tennessee.

Teachers To Work With Socially Maladjusted Children

The schools serve socially and emotionally disturbed children in a variety of ways. Relatively few of the children, even including those with serious social and emotional problems, are in special classes; some are in residential schools for delinquent boys and girls; some are in psychiatric hospital wards. The majority of these children, however, are regarded by State and local school systems as a responsibility of the general education program, and, for the most part, are in regular classes. A relatively small but critical proportion with serious problems do come within the realm of special education.

Emotionally disturbed children in school systems are frequently aided by visiting counselors, visiting teachers, guidance personnel, clinical specialists, and other school personnel. Such people are not usually considered a part of special education, and they do not seek their professional preparation through a sequence of courses specifically designed for teachers of the socially maladjusted. Instead, many of them take advantage of college

Map 6.—Location of the colleges and universities which reported sequences of preparation for teachers of the socially maladjusted during the academic year 1953-54



offerings in general education, social work, psychology, and guidance. Through these general avenues colleges contribute to the preparation of personnel to work with these children. Caution, therefore, must be observed in interpreting data presented herein on preparation of teachers for children who are emotionally disturbed.

Only 10 collegiate institutions reported sequences of preparation specifically for teachers of children with serious social and emotional problems. Three of these (refer to table 1 and map 6) are located in California, 2 in Kansas, 2 in Illinois, and 1 each in Michigan, Mississippi, and Oregon. As will be seen in map 6, these colleges are quite well distributed geographically throughout the Nation, 4 being on the west coast, 3 in the Great Lakes region, 2 in the Plains region, and 1 in the Southeast.

Teachers of the Mentally Retarded

The mentally retarded, as was indicated on page 3, represents one of the largest single groups of exceptional children for whom the schools have responsibility. Approximately 700,000 school-age boys and girls have mental limitations so marked that they are in need of a special educational curriculum. Even with the most generous allowances for provisions made by local school systems and private and residential schools, it is safe to say that not more than 25 percent of these children now have such specialized programs.

This is an area of exceptionality in which public demand for the extension of services is currently high. Many retarded children can become useful citizens. In their development, education plays a very important role. Thus, if school programs are adjusted to their intellectual abilities and their social needs, society as a whole will benefit. Parents of the mentally retarded often need as much guidance as do their children. Demand from the public for more services from schools to these children and their parents places an additional obligation on all institutions concerned with education. This is, therefore, an area in which the demand for trained personnel is likely to increase. It will be recalled that substantiating evidence regarding the need for teachers of the mentally retarded was presented on page 6 of this bulletin. School administrators find it more difficult to secure qualified teachers in this area than in all others, except the deaf.

Colleges and universities have been recognizing this need. In the past 5 years, the number of institutions of higher learning offering the opportunity for preparation of teachers of the mentally retarded has increased greatly. Reference to table 1 shows that 40 colleges and universities (located in 18 States) currently report a sequence of preparation. Only 22 colleges and universities offered such a program in 1949. As the 1953-54 figure does not include summer courses and workshops, it is safe to estimate

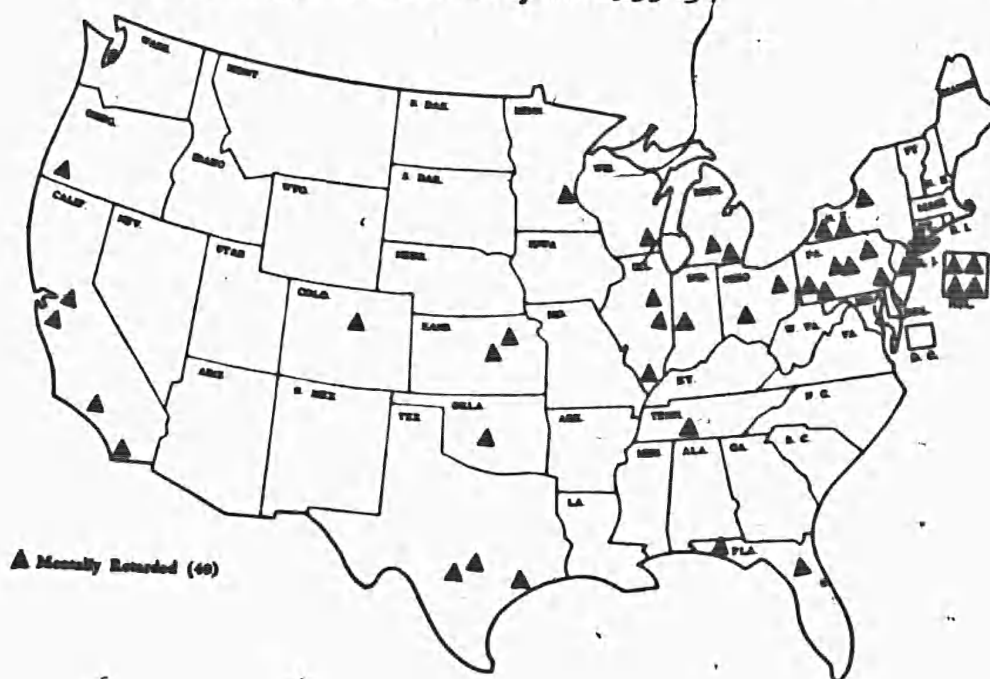
34 PREPARATION OF TEACHERS OF EXCEPTIONAL CHILDREN

that the institutions offering sequences in the area of the mentally retarded have at least doubled in number since 1949.

One may next inquire "Where are these colleges located, and how are they distributed across the Nation?" As is shown in map 7, these are rather widely distributed geographically, although the majority of opportunities for teacher preparation are east of the Mississippi.

The State of New York leads all others with 7 colleges offering sequences of preparation for teachers of the mentally retarded. Four of these are in

Map 7.—Location of the colleges and universities which reported sequences of preparation for teachers of the mentally retarded during the academic year 1953-54



New York City, and 3 in the western part of the State. Pennsylvania, California, Illinois, and Texas also have extensive opportunities for teachers in this area of exceptionality, with 6, 4, 3, and 3 centers, respectively. In 4 other States, there are 2 institutions offering such sequences. These are Florida, Kansas, Michigan, and Ohio. The other 9 States in which one college offers a program can be identified on map 7.

Increasingly public-school systems in this country have been developing special classes for mentally retarded children. Because of this, there is a serious shortage of qualified teaching personnel. This situation is likely to become even more critical in view of the vigorous efforts of laymen in behalf of more educational opportunities for these children.

Teachers of the Gifted

Only two centers in the United States offer complete sequences during the regular academic year for the preparation of teachers of gifted children. These are Hunter College of the City of New York and Pennsylvania State University.

At present, there is a marked difference of opinion concerning the type of school organization which is most helpful to superior students. There are relatively few classes designed solely for these children. Instead, regular teachers have been entrusted largely with responsibility for making curricular adjustment in the regular classroom. Little is known about the distinctive competencies needed by teachers of the gifted. It is not surprising, as a result, that special education personnel reported relatively few requests for teachers of superior students (see p. 6.).

On the basis of the status of special education in this field, it would appear that considerable study and research is needed on the types of school adjustment which will ensure these children opportunity for maximal growth. Further, it would seem that study of the specialized preparation needed by personnel to work in this field requires more thorough examination.

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★ Personnel in Special Education ★

★ Programs of Colleges and Universities ★

★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★

THE IMPORTANCE of the role played by the effective teacher in a program for exceptional children is universally recognized. Because of this, leaders in special education are concerned with the status of existing teacher-education programs in this field. They ask such questions as the following: How many professors and instructors throughout the Nation are engaged in the preparation of teachers of exceptional children? In what areas of exceptionality do they work? How many are devoting full time to special education? Do many institutions have directors of special education programs?

Are statistics available on the number of students majoring in the various areas of exceptionality? How many college students are enrolled in single special education courses? In what areas of exceptionality do the largest number of students seek preparation? Are figures available on the number and types of degrees granted to students in the field?

The information presented in the following paragraphs, and in tables 2, 3, 4 and appendix B, will throw some light on the foregoing questions. Caution should be maintained in interpreting the material since the bulletin includes information for only those institutions which reported sequences of preparation. No data are given on the hundreds of other colleges and universities providing single courses in special education.

Of the 122 institutions of higher learning offering sequences of preparation: 107 reported statistics on personnel; 105 on student enrollment; and 92 on degrees granted. Approximately 89 percent of the colleges contributed information on these items. The data presented here, while they have definite limitations, form a basis of fact hitherto unavailable.

Instructional Staff in Special Education

There is known to be a severe shortage of qualified personnel to staff the college programs for the preparation of teachers of exceptional children. Because this is a critical problem, effort was made in this study to collect status information on personnel in existing programs in the hope that such data will aid in planning for the future. Information includes: (1) The

number of staff members participating in special education programs; (2) the areas of exceptionality in which these faculty members work; and (3) the number and location of colleges having directors or coordinators of programs.

Table 2.—Summary¹ of Faculty Members in Special Education Reported by Colleges and Universities for the Academic Year 1953-54

Area of major responsibility	Type and number of personnel						
	Total	Full-time special education ²	Full-time and part-time special education ³	Part-time community personnel ⁴	Part-time graduate students	Full-time demonstration personnel ⁵	Part-time demonstration personnel ⁶
1	2	3	4	5	6	7	8
Total	897	253	144	155	126	57	162
Blind	7	1		5			1
Crippled	35	6	9	6	2	6	6
Deaf	94	8	8	30	1	12	35
Gifted	2		1				1
Hard-of-hearing	26	3	2	11	2	3	5
Mentally retarded	137	28	38	26	3	10	32
Partially seeing	10		4	4		1	1
Socially maladjusted	8	1	3	1		3	
Special health problems	3		1	2			
Speech correction	342	112	46	37	73	13	61
Speech and hearing	167	61	19	24	40	4	19
2 or more areas of exceptionality other than speech and hearing	55	25	10	9	5	5	1
Overall	11	8	3				

¹ See Appendix B for detailed report.

² Staff members with full-time appointments, with full-time duties in special education.

³ Staff members with full-time appointments, with part-time duties in special education.

⁴ Persons holding positions outside the college.

⁵ Demonstration teachers in special education on full-time college or university appointments.

⁶ Demonstration teachers in special education on part-time college or university appointments.

Number of Staff Members

The 107 colleges supplying information on staff reported a total of 897 instructors employed in their special teacher-education programs. (See table 2.) Only 552 of the 897 staff members (see table 2) seems to have primary and ongoing responsibility for instruction of students. The remaining 345 (or approximately 38 percent) are either graduate students, giv-

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ing part time to college teaching, or demonstration teachers. The 897 faculty members were reported in the following classifications:

253 on full-time college appointments with full-time duties in special education;

144 employed full-time by the college, but have only part-time duties in special education,

155 engaged in other community activities, such as coordinator of special education in the local school system, and also employed part-time by the college to give instruction in special education,

126 graduate students who give instruction in special education on a part-time basis;

57 individuals holding full-time staff appointments as demonstration teachers, and

162 individuals employed part-time by the college as demonstration teachers.

These data are given, by college and area, in Appendix B, except that demonstration teachers are not included in the Appendix.

Whenever a program of specialized preparation is under discussion, questions arise concerning the comparative merit of part-time and full-time staff members. Programs are sometimes conducted by faculty members whose major responsibilities and interests are centered in activities other than special education. Many institutions, especially city colleges, employ large numbers of specialists to give courses on a part-time basis. Some of these people are actively engaged in local school systems or community agencies in addition to their employment by the collegiate institution. Criticism is sometimes leveled at the practice of employing such part-time staff members on the grounds that they have neither the time nor the energy for effective work with students. Others defend this practice on the grounds that these part-time instructors are specialists with considerable experience, often with high qualifications, who bring to the college curriculum not only technical knowledge, but also a realistic point of view.

More than 60 percent of the personnel (see table 2), are giving only part of their time to college programs. It is likely that a large number of these offer only a single course in any one quarter or semester. The status of the whole special education movement is on a precarious foundation when one considers that, for the Nation's 5,000,000 exceptional children (who need an estimated 100,000 special education teachers) only 253 faculty members were reported to be giving full time to preparing teachers of exceptional children and half of these are in speech correction and speech and hearing.

Areas of Specialization of Faculty Members

Information is also given in table 2 on the areas in which the staff members work. It will be seen readily that the largest number is instructing

in the area of speech correction, and speech and hearing. The next largest group of staff members is concerned with the preparation of teachers of mentally retarded children. Following in order are personnel in the areas of the deaf, crippled, and hard of hearing. Only 2 persons were reported as having major responsibility for the gifted, 3 for special health problems, 7 for the blind, 8 for the socially maladjusted, and 10 for the partially seeing. Fifty-five are giving instruction in 2 or more areas of exceptionality, other than speech and hearing.



Courtesy, Detroit, Mich., Public Schools

In the School Day There is Time for Physical Therapy.

Some rather startling observations come to light by comparing tables 1 and 2. For example, 10 centers reported a sequence in the area of the socially maladjusted; yet only 8 staff members were reported as specializing in this

field, and of these 7 were on full-time college appointments, and 1 of these was giving full time to special education. This is only one illustration of many such situations which can be discovered through comparing tables 1 and 2.

Programs with Directors

Twenty-six institutions reported directors or coordinators of special education. These staff members, for the most part, devote full time to this work. Several directors, however, are known to perform other duties in their colleges. A list of the names and locations of institutions having coordinators in 1953-54 follows:

- Los Angeles State College, Los Angeles, Calif.
- San Diego State College, San Diego, Calif.
- San Francisco State College, San Francisco, Calif.
- University of California, Berkeley, Calif.
- New Haven State Teachers College, New Haven, Conn.
- Illinois State Normal University, Normal, Ill.
- Southern Illinois University, Carbondale, Ill.
- University of Illinois, Urbana, Ill.
- Indiana State Teachers College, Terre Haute, Ind.
- Michigan State Normal College, Ypsilanti, Mich.
- Wayne University, Detroit, Mich.
- New Jersey State Teachers College, Newark, N. J.
- Hunter College of the City of New York, N. Y.
- New York State Teachers College, Buffalo, N. Y.
- Syracuse University, Syracuse, N. Y.
- Teachers College of Columbia University, New York, N. Y.
- Kent State University, Kent, Ohio.
- Ohio State University, Columbus, Ohio.
- Oklahoma University, Norman, Okla.
- Pennsylvania State University, State College, Pa.
- George Peabody College for Teachers, Nashville, Tenn.
- Southwest Texas State Teachers College, San Marcos, Tex.
- University of Houston, Houston, Tex.
- University of Texas, Austin, Tex.
- Wisconsin State College, Milwaukee, Wis.
- Gallaudet College, Washington, D. C.

Students Enrolled in Institutions Having Sequences of Preparation

Earlier in this publication a report was made on the areas in which teachers are most needed, and on areas in which they are most difficult to secure. It is to be recalled that the greatest demand was for teachers of the mentally retarded and for speech-correctionists (see p. 5). It was also reported that teachers of the deaf and the blind were most difficult to secure (see p. 7). In view of the teacher shortage in special

education, statistics on student enrollment will have significance for future planning:

Each of the 122 colleges and universities with specialized curricula was asked to supply statistics on (1) the number of students majoring at the undergraduate and graduate levels in the areas in which a sequence of preparation was offered, and (2) the number of students taking single courses, at the undergraduate and graduate levels, in special education. A summary of the findings is presented in table 3. The detailed report by colleges and by areas of exceptionality appears in appendix B.

A total of 4,601 students majoring in the various areas of special education was reported by the colleges and universities in this study. Of these students, more were majoring in speech correction, and in the related field of speech and hearing than in all of the remaining 9 areas of exceptionality combined (see table 3, page 42). Of those majoring in the other 9 areas, the largest numbers are preparing to teach the mentally retarded, the deaf, and the crippled. The smallest numbers are in the areas of the gifted, the partially seeing, and the blind.



Courtesy, Chicago Public Schools

**Cerebral Palsied Children Enjoy Group Play As They Are Supported by
Cut-out Table.**

Examination of table 3 affords further information on the number of students classified as undergraduate and graduate majors. Approximately two-thirds are registered at the undergraduate level. The report shows

2,996 bachelor's, 1,397 master's, and 208 doctor's candidates. At each of these levels, the largest numbers are in speech correction, and speech and hearing. The proportion of majors in these fields is lower at the master's level than at either the undergraduate or doctoral levels. Conversely, the proportion of master's majors is highest in the areas of the mentally retarded, the crippled, and the deaf.

Not one doctoral candidate was reported to be specializing in either the education of blind children, or the education of children with special health problems. Only one each was working in the fields of the crippled, the gifted and the partially seeing, while only three were working toward the doctor's degree in the education of the socially maladjusted. By far the largest proportion are working in speech and hearing. Next in order are the areas of the mentally retarded and the crippled.

During the academic year 1953-54, the colleges reported 5,712 students who were not registered as majors but were enrolled in single courses in

Table 3.—Summary ¹ of Student Enrollment in Special Education Reported by Colleges and Universities for the Academic Year 1953-54

Area of exceptionality	Number of students						
	Majoring in specialized areas				Taking single courses in specialized areas		
	Total	Under-graduate	Graduate		Total	Under-graduate	Graduate
			Master's	Doctor's			
1	2	3	4	5	6	7	8
Total	4,601	2,996	1,397	208	5,712	3,442	2,270
Blind	33	3	30		67	8	59
Crippled	156	64	91	1	136	22	114
Deaf	195	82	104	9	76	30	46
Gifted	21	2	18	1	34		34
Hard-of-hearing	61	16	38	7	100	30	30
Mentally retarded	805	396	365	44	624	111	513
Partially seeing	30	17	12	1	6		66
Socially maladjusted	82	23	56	3	174	3	171
Special health problems	60	44	16		18		18
Speech correction	2,330	1,721	512	97	2,719	2,184	535
Speech and hearing	600	455	116	29	423	287	136
2 or more areas of exceptionality other than speech and hearing	228	173	39	16	20	17	3
Survey course					1,255	730	525

¹ See appendix B for detailed report.

special education. Here again the largest number was registered at the undergraduate level. More than one-half were taking undergraduate courses (see columns 6, 7, and 8). At both levels, more than one-half of all these students were taking courses in speech correction or closely related fields. Approximately twenty percent of the total were enrolled in survey courses on the education of exceptional children. The next most popular courses appear to be those related to the education of mentally retarded children.

It should be emphasized again that hundreds of colleges are not reported in this publication, yet are contributing significantly to teacher preparation. Many teacher education institutions which have no integrated special edu-



Courtesy, Houston, Tex., Public Schools

School is Geared to Meet Everyday Needs of Mentally Retarded.

cation program offer survey courses. The value of these opportunities must not be discounted for many of them contribute to the better understanding of exceptional children throughout the Nation.

Degrees Granted By Colleges Having Sequences

The distribution of academic degrees obviously follows a pattern somewhat similar to that just presented on students majoring in the various areas of exceptionality. In all, 92 colleges and universities (30 did not provide

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data) reported that 1,549 degrees were granted in the calendar year 1953. Approximately two-thirds of these, or 955 of 1,549, are again in speech correction, or speech and hearing (see summary table 4). The next largest number of degrees were, in order, in the areas of the mentally retarded, the deaf, and the crippled. The fewest were in the areas of the gifted and special health problems. The distribution of degrees in the various areas of special education is not decidedly heavy at the undergraduate level, although it is weighted somewhat in that direction.

Table 4.—Summary¹ of Degrees Granted in Special Education as Reported by Colleges and Universities for the Period Jan. 31, 1953, to Dec. 31, 1953

Area of exceptionality	Degrees granted				
	Total	Bachelor's	Master's	Ph.D.'s	Ed.D.'s
1	2	3	4	5	6
Total.....	1,549	988	516	39	6
Blind.....	20	12	8		
Crippled.....	58	31	23	1	3
Deaf.....	67	37	30		
Gifted.....	2			1	1
Hard-of-hearing.....	7		7		
Mentally retarded.....	285	151	130	3	1
Partially seeing.....	9	5	4		
Socially maladjusted.....	20	6	14		
Special health problems.....	3	2	1		
Speech correction.....	725	494	201	29	1
Speech and hearing.....	230	168	59	3	
2 or more areas of exceptionality other than speech and hearing.....	122	82	39	1	
Overall.....	1			1	

¹ See appendix B for detailed report.

The report on doctoral degrees shows a pattern of significant importance. In all, 45 degrees were granted; 39 of these were Ph.D.'s and 6 were Doctors of Education. The concentration of doctoral degrees in the field of speech and hearing is even higher than it is for the total degrees granted. Thirty-two of the 39 Ph.D.'s were in speech or speech and hearing (see column 5 in table 4). In the case of doctor of education degrees, the pattern reversed itself, with 3 of the 6 degrees in the crippled, and one each in the gifted, mentally retarded, and speech correction.

The fact that so few doctor's degrees are being granted in special education has tremendous significance for teacher preparation. Most of the

institutions of higher education require the doctor's degree of their staff members—at least for the higher ranking positions.

Does the scarcity of doctoral degrees mean that colleges and universities developing programs of teacher preparation will not be able to find persons specifically equipped with academic preparation in special education to direct the programs, and that, at least for the time being, the top-ranking college staff will come from general education or psychology? The problem posed is one calling for careful consideration, especially since teachers reporting throughout the broad study, "Qualification and Preparation of Teachers of Exceptional Children," have indicated that they want their college professors to be *educators* with college majors in education of exceptional children and practical experience in one or more areas of exceptionality.

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★ Illustrations of College and University ★

★ Curricula in Special Education ★

★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★

MANY PEOPLE have asked for information on the specialized courses which constitute curricula in the colleges and universities offering sequences of preparation for teachers of exceptional children. It is not within the scope of the present bulletin to list the specialized course offerings for each of the 122 institutions reported in this publication as offering sequential curricula in one or more areas of exceptionality. Included, however, is a brief summary of the special education programs of 10 institutions. These summaries of curricula were contributed by 2 State universities, 2 State colleges, 1 city university, 1 city college, 2 private universities, and 2 universities which offer rather extensive speech and hearing programs. The curricula offered by these centers are not necessarily better than those of other colleges and universities which might have been included. They are merely illustrations of special education programs, and should be thought of as such.

Persons who wish detailed information on the curriculum in individual colleges and universities would be well advised to communicate directly with the institutions in which they are interested. This would be true for the 10 summaries of the programs presented here as well as for the remaining 112 programs not reported. This is especially advisable when one bears in mind that curricula are in a constant state of change from year to year. The descriptions below were merely intended to illustrate, in general, the extensiveness and intensiveness of a specialized program.

The courses listed have been grouped into two classifications: (1) General courses dealing with all or most areas of education for exceptional children, and (2) specialized courses in the sequences of specialized preparation. Detailed information on student enrollment, degrees granted, and faculty membership can be found in appendix B. No attempt was made to indicate whether the courses carried undergraduate or graduate credit, or both. All course descriptions, quotations, and other statements were abstracted from the reports made by the institution under consideration, and from catalogs and printed announcements.

It should be emphasized again that no attempt was made in this publication to evaluate programs. The summaries of curricular offerings are only illustrations of practices. They come from colleges and universities which serve rather large population areas in various parts of the United States.

San Francisco State College, San Francisco, Calif.

San Francisco State College offers sequences leading to the bachelor's and master's degrees in the following areas of exceptionality: Education of the blind, the partially seeing, the crippled, the deaf, the hard-of-hearing, the speech handicapped, the socially maladjusted, and the mentally retarded.

A. GENERAL COURSES DEALING WITH ALL OR MOST AREAS OF EDUCATION FOR EXCEPTIONAL CHILDREN

1. *Education of exceptional children.*—Survey of various types of physically, mentally, and socially handicapped children; methods of diagnosis; educational adjustments.
2. *Teaching arts and crafts to the handicapped.*—Study of arts and crafts as an integral part of the school curriculum of the handicapped.
3. *Educational and vocational guidance of the handicapped.*—Principles, techniques and organization of guidance services for the physically, mentally, and socially handicapped.
4. *Administration and supervision of education of exceptional children.*—Problems of organization, administration, and supervision of special education programs.
5. *Special problems in the education of the exceptional child.*—An intensive study of a particular problem in the education of exceptional children under the direction of a staff member of the division.
6. *Problems in the diagnosis of exceptional children.*—Educational and psychological diagnosis of physically and mentally handicapped children.
7. *Seminar in education of exceptional children.*—Graduate study in current research and professional projects in special education.
8. *Better speech for classroom child and teacher.*—Classroom procedures for developing normal speech in school children; introduction to applied phonetics.

B. SPECIALIZED COURSES IN THE SEQUENCE FOR TEACHERS OF BLIND CHILDREN

1. *The blind in society.*—Survey of literature on psychology of blindness, sociological implications for adjustment of blind in society; education of blind; changing trends.
2. *Education and methods of teaching the blind.*—Introduction to education of blind; the blind child as he learns; introduction to braille reading and writing, and methods in elementary school; curriculum aids and materials.
3. *Teaching of braille.*—Reading and writing braille grade 2; methods and techniques of teaching grade 2; mathematical notation.
4. *Clinical practice with visually handicapped.*—Practice in individual work and/or preparation of tests and materials for use with partially seeing or blind children.
5. *Student teaching with blind children.*

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C. SPECIALIZED COURSES IN THE SEQUENCE FOR TEACHERS OF PARTIALLY SEEING CHILDREN

1. *Eye health and vision screening in the schools.*—Eye health, eye efficiency, visual difficulties, routine vision testing, observation skills; adaptation of environment, curriculum materials.
2. *Education of children with impaired vision.*—History of education of partially seeing, organization and facilities in public schools. Curriculum adaptations and methods of teaching the partially sighted child.
3. *Clinical practice with visually handicapped.*—(See Blind.)
4. *Physiology and hygiene of the eye.*—Physiology of the eye, eye disease and defects, causes of blindness, hygiene of vision, vision appraisal. Includes lectures by ophthalmologists, clinic and surgery observation.
5. *Student teaching with partially sighted children.*

D. SPECIALIZED COURSES IN THE SEQUENCES FOR TEACHERS OF CRIPPLED CHILDREN

1. *Methods of teaching orthopedically handicapped child.*—Evaluation of techniques in working with the homebound child; children in orthopedic or special health classes, schools or institutions for crippled children. Study of available materials, curriculum planning.
2. *Teaching the cerebral palsied child.*—The causes of cerebral palsy; problems of physical, mental, social, and emotional development; coordination of services available to meet children's individual needs.
3. *Survey of physical defects.*—Survey of basic causes of most common physical defects; the problems involved in school and life adjustment and rehabilitation possibilities. Field trips.
4. *Advanced problems in teaching the cerebral palsied.*—Consideration of problems of child guidance, working with parents of cerebral palsied children and specific techniques helpful in education and training of cerebral palsied children.
5. *Clinical practice with orthopedically handicapped.*—Individual observation and practice in clinic situations for experienced persons who desire "refresher" opportunities in modern techniques.
6. *Student teaching with crippled children.*

B. SPECIALIZED COURSES IN THE SEQUENCE FOR TEACHERS OF DEAF CHILDREN

1. *Activity program for deaf children.*—Methods of using activity program for development of language materials, techniques and organization.
2. *Language development and reading for deaf.*—History of the methodology of education of the deaf; natural acquisition of language and principles of systematic development of language.
3. *Teaching elementary school subjects to deaf.*—(A and B) General teaching methods as applied to deaf children. Vocabulary and language development. Classroom management, lesson planning.
4. *Speech training for deaf.*—(A and B) Development of oral communication with emphasis on kinesiological phonetics. Voice production, articulation, rhythm, accent, fluency, and inflection.
5. *Clinical practice with deaf.*—Individual work with deaf children using an integrated language arts approach including speech, speech reading, language usage, reading, writing, and spelling.
6. *History of the education of the deaf.*—Historical background, development of methods, and modern trends in educating deaf children.

7. *Advanced problems in language development for deaf.*—Intermediate and upper elementary grade language; correction of typical errors; preparation of drill materials; expansion of reading program.
8. *Student teaching with deaf children.*

**F. SPECIALIZED COURSES IN THE SEQUENCE FOR TEACHERS OF
HARD-OF-HEARING CHILDREN**

1. *Methods of teaching speech (lip) reading to hard-of-hearing.*—Survey of principal methods of teaching speech reading; development and practice of foundation exercises.
2. *Education of hard-of-hearing children.*—Education diagnosis, school adjustment, and classroom placement of hard-of-hearing child; methods in auditory training, modern amplifying devices and teaching child how to use hearing aids; fundamentals of speech training. Social and psychological implications of hearing impairment.
3. *Audiometric testing and hearing conservation.*—The diagnosis and measurement of hearing acuity, including analysis of hearing tests and training in the use of the audiometer.
4. *Clinical practice with hard-of-hearing.*—Practice in presenting materials through lip reading. Preparation of materials.
5. *Hearing aids; principles, selection and use.*—Clinical techniques and testing in relation to the selection and use of modern amplification devices; the use and maintenance of group and individual hearing aids.
6. *Student teaching with the hard-of-hearing.*

**G. SPECIALIZED COURSES IN THE SEQUENCE FOR SPEECH COR-
RECTIONISTS**

1. *Speech development and correction.*—Factors related to the development of normal speech in children. Typical and common speech defects found among preschool and school children.
2. *American phonetics.*—Speech sounds, their characteristics and production in American dialects; applications in speech education and correction; study of phonetic alphabets and practice in broad transcription.
3. *Observation and clinical methods in speech therapy.*—Observation of speech correction classes and clinics in the public schools.
4. *Advanced speech development and correction.*—Development and corrective techniques for delayed speech, for severe articulatory defects, and for complicated speech disorders arising from structural anomalies, physiological or neurological deficiencies, or psychological involvements.
5. *Clinical practice in speech therapy.*—Supervised practice in the correction of speech defects through work with various types of cases in the speech clinic or an equivalent speech correction program. Approximately 25 clock-hours of clinical practice required for each unit of credit.
6. *Speech pathology.*—Speech defects and disorders: causes, symptoms, relationships, and diagnostic procedures. Corrective procedures are dealt with only in general terms.
7. *Student teaching in speech correction.*

**H. SPECIALIZED COURSES IN THE SEQUENCE FOR TEACHERS OF THE
SOCIALLY MALADJUSTED**

An internship program has been developed in cooperation with the California Youth Authority. This program is five years in length. Emphasis is on training to deal effectively with socially and emotionally maladjusted children and youth in the public schools and in the State schools for juvenile delinquents.

The following is the course sequence for the major program in the junior, senior and graduate years:

1. *Education*.—The learner in society; principles of secondary education; curriculum and instruction in teaching; audiovisual education; evaluation techniques in education.
2. *Special Education*.—Education of exceptional children; speech correction; remedial techniques in education; curriculum and methods for teaching the mentally retarded; educational and vocational guidance of the handicapped; student teaching in special classes.
3. *Psychology*.—Child growth and development, mental hygiene; behavior problems of children; adolescent psychology; introduction to mental testing, clinical methods in psychology.
4. *Sociology*.—Cultural anthropology; principles of sociology; crime and delinquency; methods in social work; race relations; problems of the modern family.

I. SPECIALIZED COURSES IN THE SEQUENCE FOR TEACHERS OF MENTALLY RETARDED CHILDREN

1. *Curriculum and methods of teaching the mentally retarded*.—Basic organization of programs for education of mentally retarded. Classification and testing. Curriculum development and principles of teaching mentally retarded.
2. *Workshop in special education*.—Basic organization of programs for education of mentally retarded. Classification and testing. Curriculum development and principles of teaching the mentally retarded. Guidance and evaluation.
3. *Advanced curriculum building for mentally retarded*.—Critical study of existing curricula for mentally retarded. Program development on elementary and secondary level. Research on curriculum development for the mentally retarded. Evaluation of pupil progress. Parent education.
4. *Advanced workshop in education of exceptional children*.—Workshop for experienced teachers and supervisors of programs for the mentally retarded. Critical analysis of existing curricula, parent education, evaluation, current research.
5. *Occupational education for mentally retarded*.—Integration of curriculum materials for development of program for mentally retarded on secondary level; techniques of disseminating occupational information through social science, language arts, arithmetic, and creative arts; guidance, placement, and followup.
6. *Mental deficiency*.—Systematic survey of types and characteristics of mental defectives. Classification and diagnosis. Criteria for institutional placement. Social control of mental deficiency.
7. *Student teaching with the mentally retarded*.

Northwestern University, Chicago, Ill.

Programs in speech correction and audiology are offered leading to the Bachelor's, Master's and Doctor's degrees

SEQUENTIAL COURSES IN SPEECH AND HEARING

1. *Language and thought*.—General semantics; practical analysis of language habits leading to conflict, confusion, misdirection, prejudice; development of methods of precision in language use.
2. *Foundations of oral communications*.—A study of speech as a communicative tool in organized society, to the evaluation of voice, speech sounds, and language, and to the problems of speech learning.
3. *English phonetics*.—Training in the recognition and production of the sounds of spoken English, with an analysis of their formation.

4. *Backgrounds of speech sciences.*—A survey of the nature of sound, acoustics, electricity and electronics, and to mathematical concepts in speech correction and audiology.
5. *Supervised teaching in speech correction and audiology.*—For prospective teachers and clinicians in speech correction and audiology.
6. *Anatomy and physiology of the vocal mechanism.*—Structure and function of the neuromuscular system involved in breathing, phonation, and articulation.
7. *Applied phonetics.*—Study of the phonetic structure of the principal American and non-American English dialects and certain European languages.
8. *Principles of speech correction: Articulation.*—Introduction to articulatory problems, including delayed speech, infantile perseveration, and foreign accent. Observation required.
9. *Principles of speech correction: Stuttering.*—An introduction to the problem of stuttering; its possible causes and the training of cases. Clinical observation.
10. *Principles of speech correction: Voice.*—An introduction to the causes of and training for voice difficulties. Observation required.
11. *Clinical and school procedures in speech correction.*—Diagnostic procedures in speech correction and the organization of public school programs. Observation and participation in the speech clinic is an integral part of the course work.
12. *Studies in voice problems.*—An advanced study of the theories of voice production with an emphasis upon the pathologies which produce voice defects.
13. *Clinical study and research in speech correction.*—Opportunities for study of speech problems as they relate to aphasia, cerebral palsy, voice, and cleft palate. Reading and reports combined with clinical practice.
14. *Speech habilitation for persons with cleft palates.*—Study of types and degrees of palatal and facial deformities and of therapy with an emphasis on the speech training. Observation in the Northwestern University Cleft Palate Clinic.
15. *Aphasia and related language disturbances.*—A consideration of the various types of aphasic disturbances found in children and adults. Clinical observations required.
16. *Stuttering.*—A study of interpretations of stuttering and the methods of treatment, the importance of stuttering in the dynamics of personality development.
17. *Seminar: Problems in voice science.*
18. *Seminar: Problems in speech pathology.*
19. *Techniques and interpretation of hearing tests.*—Administration of hearing tests, and interpretation of results, case finding and referral; the organization of hearing conservation programs. Testing required.
20. *Methods of auditory training.*—Study of the systems of auditory training, and consideration of methodologies for developing the auditory discrimination.
21. *Teaching of speech reading.*—Study of the systems of speech reading and consideration of methodologies for teaching speech reading to children and adults.
22. *Language and speech for the deaf.*—Development of speech systems for teaching speech to the deaf, study of speech production, pressure, and kinesthetic clues for the control of speech. Clinical observations required.
23. *Psychological techniques in audiology and speech correction.*—Psychological tests and diagnostic procedures for children and adults with impaired hearing and defective speech. Clinical observation required.
24. *Psychological adjustment of the handicapped.*—A study of psychological problems encountered in individuals with impaired hearing and defective speech.
25. *Hearing aids and residual hearing.*—Speech audiometry; assessing the usefulness of residual hearing; principles and procedures in selecting and wearing a hearing aid.
26. *Anatomy and physiology of the hearing mechanism.*—Study of the structure of the human ear and of its abnormalities and diseases. Consideration of the basic principles in the hearing process.

27. *Clinical study and research in audiology.*—Each student participates in a special clinic in audiology. Readings and reports are combined with clinical practicum.
28. *Principles of clinical audiology.*—Psychophysics of audition in relation to clinical problems; special tests and exploratory techniques.
29. *Seminar: Hearing and deafness.*—Psychological problems relating to hearing impairment, intelligence, perception, motor disturbances and educational classification.
30. *Seminar: Problems in audiology.*—Physiology and psychophysics of both normal and impaired hearing.
31. *Psychology of speech.*—A study of the psychological principles involved in speech and application of these principles to individual and group problems of speech and speech education.

University of Illinois, Urbana, Ill.

Programs of study are offered in the division of exceptional children of the College of Education leading to the Bachelor's, Master's, and Doctor's degrees. Candidates for the Bachelor's and Master's degrees may major in one of the following areas of exceptionality: Education of deaf and hard-of-hearing children and education of mentally retarded children. Programs in speech and hearing are offered in the College of Liberal Arts and Sciences.

A. GENERAL COURSES DEALING WITH ALL OR MOST AREAS OF EDUCATION FOR EXCEPTIONAL CHILDREN

1. *Exceptional children.*—Psychological, social, and physical characteristics of exceptional children, and educational provisions organized for them.
2. *Psychoeducational problems of exceptional children.*—A course in psychological and educational problems of all types of exceptional children.
3. *Social psychology of the handicapped.*—A study of the social and emotional adjustment of handicapped children and adults.
4. *Administration and supervision of education of exceptional children.*—A course for supervisors, principals, and administrators on special school provisions for exceptional children.
5. *Mental and educational measurement of exceptional children.*—Practice is given in administering educational tests; and in interpreting psychological tests.
6. *Clinical-educational diagnosis of exceptional children.*—A clinical course in the diagnosis of educational disabilities, including reading, spelling, and arithmetic.

B. SPECIALIZED COURSES IN THE SEQUENCE FOR TEACHERS OF DEAF AND HARD-OF-HEARING CHILDREN

NOTE. Certain of the courses in part C below are included in this sequence.

1. *Special education of the deaf—Part I.*—Sense training, lipreading, vocabulary building, reading and language, auditory training.
2. *Special education of the deaf—Part II.*—Grammar for the deaf, language and speech development, curriculum building, parent education.
3. *Problems in communication for the deaf.*—An advanced course in language development, speech development, and speech reading of the deaf.
4. *Audiometry and use of hearing aids.*—Selective and diagnostic tests of hearing; the planning and conducting of hearing conservation programs.
5. *Educational practice with deaf and hard-of-hearing children.*—Supervised student teaching of the deaf and hard of hearing.

C. SPECIALIZED COURSES IN THE SEQUENCES FOR SPEECH AND HEARING SPECIALISTS

1. *Introduction of phonetics*.—Basic principles of phonetic study; ear training; and practice in transcription.
2. *Speech science*.—Introduction to the anatomical and physiological characteristics of the normal speech mechanisms.
3. *Introduction to hearing disorders*.—Analysis of symptoms and causes of hearing loss; principles of retraining the hard of hearing.
4. *Aural rehabilitation*.—Principles and methods of clinical and classroom retraining of the hard of hearing.
5. *Speech correction with laboratory*.—Study of causes, symptoms, and treatment of speech disorders; observation and practice in clinical techniques.
6. *Educational practice in speech correction*.—Supervised observation and practice in speech correction.
7. *Psychological disorders of speech*.—Principles and methods of clinical and classroom correction of psychological disorders of speech.
8. *Voice and articulation disorders*.—Principles and methods of clinical and classroom correction of voice and articulation disorders.
9. *Experimental phonetics I and II*.—Principles of investigation of physiological, acoustical, and psychophysical aspects of speech and hearing.
10. *Seminar in voice and articulation disorders*.—Advanced study of voice and articulation disorders; survey of research and theory.
11. *Seminar in psychology of speech disorders*.—Advanced theoretical study of psychological disorders of speech such as stuttering, delayed speech, and hysterical conditions.
12. *Advanced clinical techniques in speech and hearing*.—Practice of advanced clinical theory of speech and hearing disorders.
13. *Diagnosis of speech disorders*.—Study of diagnostic procedures.
14. *Seminar in organic speech disorders*.—Principles and methods of clinical and classroom correction of speech disorders associated with organic dysfunctions.
15. *Research in speech and hearing*.

D. SPECIALIZED COURSES IN THE SEQUENCE FOR TEACHERS OF MENTALLY RETARDED CHILDREN

NOTE. Students majoring in the education of the mentally retarded are required to take courses in speech correction.

1. *Psychology and education of the mentally handicapped. Part I*.—A study of the social, emotional, physical, and learning characteristics of mentally handicapped children, methods of diagnosis and differentiation; educational organization.
2. *Psychology and education of the mentally handicapped. Part II*.—Emphasis on curriculum for, and methods of teaching the educable mentally handicapped.
3. *Education practice in the education of the mentally retarded*.—Supervised student teaching of the educable mentally handicapped.
4. *Problems in mental deficiency*.—An advanced course covering definitions, theories, classification, etiology, diagnosis, and research in the area of mental deficiency.

State University of Iowa, Iowa City, Iowa

Programs are offered in speech pathology and audiology at the bachelor's, master's and doctoral levels. The specific course work includes:

1. *General semantics*.—Covers language behavior, with emphasis on common disorders and on ways of developing language reactions and symbolic responses.

2. *Introduction to speech pathology and audiology.*—The nature, causes, and principles of treatment of speech and hearing disorders; speech correction as an educational and clinical field.
3. *Fundamentals of hearing.*—An introduction to the basic psychophysical dimensions of the auditory mechanism with special study of the ear as a sense organ.
4. *Introduction to clinical practice in speech correction.*—Participation in medical and non-medical units of the speech clinic, attendance at hearing clinics, preparation of case histories and reports.
5. *Voice and articulation disorders.*—Theory and practice in examination, diagnosis, and treatment of both children and adults, individually or in groups.
6. *Stuttering: Research and theory.*—Lectures, readings, and projects covering research, theory and principles of therapy. Observations in stuttering clinic.
7. *Organic disorders of speech I.*—Lectures, demonstrations, and supervised clinical practice in the areas of cerebral palsy, aphasia, and congenital language disabilities.
8. *Organic disorders of speech II.*—Lectures, demonstrations, and supervised clinical practice in the areas of cleft palate, laryngectomy, and miscellaneous voice disorders.
9. *Communication problems of the hard of hearing.*—Research and theory. Theory and research pertaining to speech production, auditory training, and speech reading for hearing adults and children.
10. *Measurement of hearing loss.*—A survey of hearing tests, introduction to types of loss and to the problems of fitting and evaluating hearing aids.
11. *Seminar: Speech pathology and audiology I.*—An orientation to research methods and significant current research issues in speech pathology and audiology.
12. *Seminar: Speech pathology and audiology.*—Section 1: voice and articulation disorders; section 2: stuttering; section 3: organic disorders of speech; and section 4: audiology.
13. *Advanced clinical practice in speech pathology and audiology.*—Section 1: voice and articulation disorders; section 2: stuttering; section 3: organic disorders of speech; section 4: audiology.
14. *Experimental audiology I: Testing and measurement in audition.*—The psychophysical dimensions of hearing; rationale of speech reception testing; function of binaural hearing.
15. *Experimental audiology II: Problems in clinical diagnosis.*—An outline of the acoustical, mechanical, and neural principles which might differentiate the various types of hearing loss.
16. *Experimental audiology III: Electrophysiology in audition.*—A review of the literature on animal experimentation in hearing.
17. *Internship in speech pathology.*—Clinical practice in speech pathology at an approved institution.
18. *Internship in audiology.*—Resident clinical practice in audiology at an approved institution.

Wayne University, Detroit, Mich.

Courses are given at both the undergraduate and graduate level in partially seeing, crippled, special health problems, deaf, hard-of-hearing, speech-handicapped, socially maladjusted and mentally retarded children. Programs are at the bachelor's, master's, and doctoral levels.

A. GENERAL COURSES DEALING WITH ALL OR MOST AREAS OF SPECIAL EDUCATION

1. *Survey of the education of exceptional children.*—Characteristics of exceptional children, causes of handicaps, incidence, diagnosis and general remedial procedures.

2. *Problems in organization, administration and supervision of special schools and classes.*—Developed on individual needs of class members.
3. *A survey of nursery school care and training of exceptional children.*—Includes children with mental and physical limitations.
4. *Guidance for the handicapped.*—Principles and methods in educational, health, social and vocational guidance as they relate to the handicapped.
5. *Specialized student teaching.*

B. SPECIALIZED COURSES IN THE SEQUENCE FOR TEACHERS OF THE PARTIALLY SEEING

1. *Problems and procedures in sight-saving classes.*—Includes organization of sight-saving classes and the adoption of methods and teaching materials.
2. *Advanced course in sight-saving.*—Attention is given to such matters as advances in medical care optical aids, social service agencies and legislation.
3. *Pathology of the organs of vision.*—Anatomy, physiology, and pathology of the organs of vision.
4. *Typewriting for blind and sight-saving classes.*—The mechanics of typewriting as used by the child with low vision.
5. *Specialized student teaching.*

C. SPECIALIZED COURSES IN THE SEQUENCE FOR TEACHERS OF CRIPPLED CHILDREN

1. *Therapeutic care of crippled children.*—Clinical observation and discussion of care of crippled children in school.
2. *Care and education of crippled children.*—Survey of institutions and schools for crippled children.
3. *Convalescent and home care and education of handicapped children.*—Problems and procedures involved in the care and education of handicapped children in hospitals, homes and other special situations.
4. *Personality—Disorders and education of brain injured children.*—The course includes causes of the conditions, testing and treatment of behavior problems.
5. *Specialized student teaching.*

D. SPECIALIZED COURSES IN THE SEQUENCE FOR TEACHERS OF CHILDREN WITH SPECIAL HEALTH PROBLEMS

1. *Problems, methods and organization in teaching low-vitality children.*—Includes diagnostic facilities, services, types of school organization for children with special health problems.
2. *Problems in the education of epileptic children.*—Attention is given to history of educational programs for epileptics, mental hygiene, vocational adjustment, and other problems.
3. *Convalescent and home care and education of handicapped children.*—(See The crippled.)
4. *Specialized student teaching.*

E. SPECIALIZED COURSES IN THE SEQUENCE FOR TEACHERS OF CHILDREN WHO ARE DEAF

1. *Problems and procedures in education of deaf and hard-of-hearing children.*—Physical, mental, and educational diagnosis; mechanical aids to hearing and curriculum adjustment.
2. *Methods of teaching lipreading.*—Principles involved in training the eye to assist the ear.
3. *Acoustic training for children with defective hearing.*—Attention is given to amplifying devices, auricular stimulation, and training.
4. *Tactile development of speech for the deaf.*—Development of elementary sounds for the deaf through use of tactile sense, training words, and use of sentences.

5. *Language development and training for deaf children.*—A systematic development of language for deaf child who enters school without language.
6. *Language development for the older deaf child.*—Language principles for the profoundly deaf child who has already acquired it in the primary grades.
7. *Visible speech.*—Basic principles of visible speech including such matters as the equipment used in translating acoustical energy with visible patterns.
8. *Audiometric testing.*—(See Speech correction.)
9. *Specialized student teaching.*

F. SPECIALIZED COURSES IN THE SEQUENCE FOR TEACHERS OF CHILDREN WHO ARE HARD-OF-HEARING

1. *Problems and procedures in education of deaf and hard-of-hearing children.*—(See Deaf.)
2. *Methods of teaching lipreading.*—(See Deaf.)
3. *Acoustic training for children with defective hearing.*—(See Deaf.)
4. *Audiometric testing.*—(See Speech correction.)
5. *Specialized student teaching.*

G. SPECIALIZED COURSES IN THE SEQUENCE FOR SPEECH CORRECTIONISTS

1. *Problems, methods and organization in speech correction classes.*—Class organization, teaching materials and aids, and methods and adoption in teaching techniques.
2. *Directed observation in speech correction.*—Observation and analysis of procedures in city schools of Detroit and in Wayne University.
3. *Phonetics.*—Multisensory study of sounds with emphasis on the acoustic, physiologic, and kinesiologic approaches.
4. *Advanced phonetics.*—Emphasis is on improvement and correction of speech habits.
5. *Clinical practice in speech correction (two courses).*—With emphasis on clinical cases attention is given to diagnosis, case histories, and clinical cases.
6. *Audiometric testing.*—Theory and practice of pure tone audiometry and speech reception based upon study of psychophysics of hearing and evaluation of hearing aids.
7. *Seminar in speech pathology (two courses).*—Techniques in speech pathology and their practical applications.
8. *Diagnostic clinical practice in speech correction.*—Clinical practice in diagnosis handling of referrals to medical specialists, and treatment of clinical cases.
9. *Specialized student teaching.*

H. SPECIALIZED COURSES IN THE SEQUENCE FOR TEACHERS OF THE SOCIALLY MALADJUSTED

1. *Problems of instruction with maladjusted children.*—Techniques and adaptations of methods; problems of delinquency in the light of underlying educational philosophy and organization.
2. *Specialized student teaching.*

I. SPECIALIZED COURSES IN THE SEQUENCE FOR TEACHERS OF MENTALLY RETARDED

1. *Problems and methods in teaching slow-learning children.*—Attention is given to individual differences in pupils, causes of difficulty in schoolwork, the learning process, curriculum and general development of the child.
2. *Organization of special classes for slow-learning children.*—Techniques in pupil analysis, records and reporting, achievement testing, curriculum, classroom organization, and the special class in relation to the total school program.

3. *Problems in the education of the mentally retarded.*—A workshop in curriculum building (two courses).
4. *Adjustment and control of the mentally handicapped.*—Review of recent developments in psychology, psychiatry, and sociology affecting education.
5. *Education and treatment of the mentally handicapped.*—Review of recent developments in education, treatment, and control of the mentally handicapped.
6. *Specialized student teaching.*

Hunter College of the City of New York

Programs of study leading to the Master's degree are offered. Candidates for this degree may major in one of the following areas of exceptionality: Education of the blind, education of the partially seeing, education of children who have orthopedic (crippling) conditions, education of children with lowered vitality (special health conditions), education of the deaf and hard-of-hearing, and education of the gifted.

A. GENERAL COURSES DEALING WITH ALL OR MOST AREAS OF EDUCATION OF THE PHYSICALLY HANDICAPPED

1. *Problems and practices in education of the physically handicapped.*—Overview of the history, development and trends in physical rehabilitation, vocational opportunities, and educational programs of the handicapped.
2. *Psychology of the physically handicapped.*—Study of personality characteristics; educational and social problems; mental tests; and the mental hygiene of the atypical.
3. *Mental, social, and vocational adjustments and guidance of the handicapped.*—This course deals with problems and procedures in the adjustment and guidance of the handicapped.
4. *Seminar in educational research.*—Types of educational problems on which researchers are engaged. Formulation of a research problem by each student.

B. SPECIALIZED COURSES IN THE SEQUENCE FOR TEACHERS OF THE BLIND

1. *Principles and methods of teaching the blind.*—Eye conditions; principles of teaching the blind; educational, social, economic, psychological problems; and relationships with the medical field.
2. *Theory and technique of reading and writing standard English braille.*—Study of embossed printing; techniques of recognition by sighted and factual means. Writings of braille by slate and machine.
3. *Observation and student teaching of the physically handicapped—area of the blind.*—Individual supervised field work in the education and care of the blind, including observation, student teaching, clinical testing and supervision.

C. SPECIALIZED COURSES IN THE SEQUENCE FOR TEACHERS OF THE PARTIALLY SEEING

1. *Anatomy, physiology and hygiene of the eye in relation to sight conservation.*—Study of the eye and eye defects; methods of minimizing visual defects; social, vocational, educational limitations.
2. *Methods of teaching for sight conservation.*—Includes methods of teaching the partially seeing in both elementary and secondary schools; physical equipment; classroom lighting; teaching tool subjects; and use of mechanical devices.
3. *Advanced student teaching internship.*

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D. SPECIALIZED COURSES IN THE SEQUENCE FOR TEACHERS OF CHILDREN WHO HAVE ORTHOPEDIC (CRIPPLING) CONDITIONS

1. *The education of the orthopedically handicapped child.*—Study of common orthopedic deviations; educational problems; materials and agencies.
2. *Methods of teaching a multiple grade class of crippled children.*—Study of organization and management of multiple grades; materials; equipment; and grouping as applied to children with crippling conditions.
3. *The education of the cerebral palsied.*—Programs and methods of teaching and counseling the cerebral palsied; role of specialists, private agencies.
4. *Advanced student teaching internship.*

E. SPECIALIZED COURSES IN THE SEQUENCE FOR TEACHERS OF CHILDREN WITH LOWERED VITALITY (SPECIAL HEALTH CONDITIONS)

1. *The education of the child with lowered vitality.*—Health conditions of the child with lowered vitality; educational problems; materials and agencies.
2. *Methods and materials in the education of the child with lowered vitality.*—Study of programs and devices in the health improvement classroom; curriculum development; tests and measurements.
3. *Critical study of cardiac children.*—Observation and study of typical cases in the special clinics. Class discussion of diagnosis, prognosis, and methods of teaching these children.
4. *Advanced student teaching internship.*
5. *The education of the homebound child.*—Study of common defects, diseases, and disorders of the severely physically handicapped; education problems materials and agencies.
6. *Methods and materials in the education of the homebound child.*—Educational programs and individual needs of severely handicapped.

F. SPECIALIZED COURSES IN THE SEQUENCE FOR TEACHERS OF DEAF AND THE HARD-OF-HEARING CHILDREN

1. *Teaching speech to the deaf and hard-of-hearing—acoustic training.*—Teaching speech to the acoustically handicapped; the vocal mechanism; hearing aids; the testing of hearing; and stimulation and training of residual hearing.
2. *Teaching language and reading to the deaf and hard-of-hearing.*—The development of language for the deaf and hard-of-hearing child. Methods and devices helpful in their special education.
3. *Teaching lipreading to the deaf and hard-of-hearing.*—Principles, history, and methods of teaching lipreading; selection and use of hearing aids.
4. *The auditory and vocal mechanisms.*—Study of the basic structures and functions of the organs of hearing and speech.
5. *Observation and student teaching.*—Area of the deaf and hard-of-hearing.
6. *The education of the cerebral palsied.*—See 3 under education of the crippled.

G. SPECIALIZED COURSES IN THE SEQUENCE FOR TEACHERS OF GIFTED CHILDREN

1. *Education of the gifted.*—Survey of gifted children; an analysis of the nature and developmental problems of gifted children; education provisions made for them in various cultures and periods. Workshop and case study procedures are used.
2. *Methods of teaching the gifted.*—Curriculum needs and methods of teaching the gifted.
3. *Advanced student teaching internship.*

Syracuse University, Syracuse, N. Y.

Programs of study are offered leading the bachelor's, master's, doctor's degrees in the division of exceptional children of the School of Education. Candidates for the bachelor's and master's degrees may major in any one of the following areas: Education of crippled children, education of the deaf, speech and hearing therapy, and education of the mentally retarded. Students with in-service experience may major in the education of partially seeing children. Candidates at the doctoral level will have their programs developed after consultation with the advisor and in terms of their needs and interests.

A. GENERAL COURSES DEALING WITH ALL OR MOST AREAS OF EDUCATION FOR EXCEPTIONAL CHILDREN

1. *Psychology of exceptional children*.—Designed to give the student a broad general overview of the significant psychological problems characteristic of all types of exceptional children.
2. *Mental, social, and vocational guidance and adjustment of physically and mentally handicapped*.—Provides an understanding of the goals of evaluation, counseling, vocational guidance and placement with exceptional children.

B. SPECIALIZED COURSES IN THE SEQUENCE FOR TEACHERS OF PARTIALLY SEEING CHILDREN

1. *Education of the partially seeing child (theory)*.—Course deals with the organization and administration of facilities for the partially sighted child and special methods of instruction.
2. *Education of the partially seeing child (practice)*.—Opportunities for observation and participation in several types of teaching situations with children who have impaired vision.
3. *Education implications of visual impairments*.—This course deals with the anatomy and physiology of the eye, etiology, care, and treatment of visual conditions.
4. *Education and development of the preschool blind child*.—Stresses the major problems of parent education, utilization of community resources, and nursery school planning for young blind children.

C. SPECIALIZED COURSES IN THE SEQUENCE FOR TEACHERS OF CHILDREN WHO HAVE CRIPPLING CONDITIONS

1. *Education of crippled children (theory)*.—This course stresses the goals of education and the major modifications of curriculum, materials, and school setting with crippled children.
2. *Education of crippled children (practice)*.—This course provides an opportunity for observation of demonstration teaching and participation in teaching with crippled children.
3. *Education of children with cerebral palsy*.—Designed to provide the student with an understanding of the highly specialized problems of education of cerebral palsied children.
4. *Workshop in the problems of cerebral palsy*.—Through the use of a variety of consultants the student has an opportunity to see the scope of the problem of cerebral palsy and the importance of the team.
5. *Orthopedics for teachers of crippled children*.—This course provides information regarding the etiology, care, and treatment of orthopedic, neurological, and other types of special health problems.

6. *Recreation for the physically handicapped.*—This course gives information regarding the recreation for the disabled permitting the greatest amount of socialization and individual interest.

D. SPECIALIZED COURSES IN THE SEQUENCE FOR TEACHERS OF DEAF CHILDREN

1. *Hearing testing and audiometric methods.*—Clinical test methods with emphasis on the development of audiometric techniques.
2. *Hearing aids and auditory training.*—Evaluation and assessment of hearing aids as related to educational, psychological, social, and industrial problems with emphasis on auditory training.
3. *Teaching visual communication to deaf and hard-of-hearing.*—Development of visual communication skills (lip reading).
4. *Teaching language to the deaf and hard-of-hearing.*—Methods of teaching language to children with hearing losses.
5. *Teaching speech to the deaf and hard-of-hearing.*—Methods of teaching speech to children with hearing losses.
6. *Education and development of children with impaired hearing (theory).*—Methods of teaching children with profound hearing losses.
7. *Education and development of children with impaired hearing (practice).*—Opportunities for observation and participation in a teaching situation with deaf children.
8. *Anatomy physiology and pathology of the hearing mechanism.*—Study of the structure, function, and abnormalities of the hearing and vocal apparatus.
9. *Seminar in audiology.*—Considers basic topics of aural rehabilitation and education of individuals with profound hearing losses.

E. SPECIALIZED COURSES IN THE SEQUENCE FOR SPEECH AND HEARING SPECIALISTS

(Students may register in this curriculum either through the School of Education or by dual registration in the School of Education and the School of Speech and Dramatic Arts.)

NOTE. Certain of the courses in part D above may be appropriate for students in this sequence.

1. *Introduction to hearing and speech problems.*—Survey of the basic concepts in aural rehabilitation and principles of speech pathology.
2. *Articulation and voice disorders.*—Study of the characteristics, etiology, examination, and diagnostic methods and remedial techniques with problems of articulation and voice disorders.
3. *Stuttering and allied disorders.*—Psychological aspects of speech disorders with primary emphasis on the nature and treatment of stuttering.
4. *Clinical methods and practice in speech and hearing therapy.*—Intensive clinical practice under supervision in speech and hearing therapy.
5. *Language and speech problems of cerebral palsy.*—Consideration of the disorders of speech and language with children who have cerebral palsy.
6. *Organic disorders of speech and language.*—Pathology and etiology associated with cleft palate, dental anomalies, structural pathologies, dysphasias, and cranial nerve lesions.
7. *Advanced clinical practice in speech and hearing therapy.*
8. *Neurological basis of physical disabilities.*—(This course also included in curricula for students of certain other sequences.) Essentials of neuroanatomy and neurophysiology.

9. *Neuropathologies of speech and language*.—Study of the nature of dysphasia, cranial nerve lesions and cerebral palsy with emphasis on speech and language training and associated problems.
10. *Seminar in speech pathology*.—Study of selected subjects in speech pathology and speech science.

F. SPECIALIZED COURSES IN THE SEQUENCE FOR TEACHERS OF MENTALLY RETARDED CHILDREN

1. *Occupational education for children with retarded mental development*.—Designed to provide understanding regarding the basic philosophy of education for retarded children.
2. *Education of young children with retarded mental development (theory)*.—Methods of teaching retarded children between the ages of 5 and 10.
3. *Education of young children with retarded mental development (practice)*.—Opportunities for observation and participation in a teaching situation with retarded children between the ages of 5 and 10.
4. *Education of intermediate children with retarded mental development (theory)*.—Methods of teaching retarded children between the ages of 11 and 14.
5. *Education of intermediate children with retarded mental development (practice)*.—Opportunities for observation and participation in a teaching situation with retarded children between the ages of 11 and 14.
6. *Education of children with retarded mental development in the secondary school*.—Course designed to provide an understanding of the methods of teaching, curriculum problems, and administrative organization for the retarded child between the ages of 15 and 20 years.
7. *Teaching reading to the slow learning child*.—Methods, writing materials, examination of materials appropriate in teaching reading to slow-learning children.
8. *Manual skills and analysis of job areas*.—Techniques of making job analysis understanding of job areas as basic material in curriculum for retarded children.
9. *Psychology of mental retardation*.—Consideration of basic psychological problems and research pertaining to mentally retarded children.

Teachers College, Columbia University, New York

Programs of study are offered leading to bachelor's, master's, and doctor's degrees. Candidates for the bachelor's and master's degrees may major in one of the following areas of exceptionality: Education of children who have crippling and special health conditions, education of the deaf, education of the hard-of-hearing, speech correction, education of the mentally retarded. Candidates for the doctor's degrees may major in any of the fields specified above, or may elect a more general special education program.

A. GENERAL COURSES DEALING WITH ALL OR MOST AREAS OF SPECIAL EDUCATION

1. *Introduction to special education*.—Designed to give an overview to general educators, and to serve as an introduction for students entering the special education program.
2. *Case work and guidance of the handicapped*.—Deals with social and vocational guidance of all types of handicapped children, and with community resources.
3. *Psychology of the physically handicapped*.—The physical, social, and emotional problems of all types of physically handicapped children including the multiply handicapped.

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B. SPECIALIZED COURSES IN THE SEQUENCE FOR TEACHERS OF CHILDREN WHO HAVE CRIPPLING AND SPECIAL HEALTH CONDITIONS

1. *Health problems of the physically handicapped.*—Causes and treatment of orthopedic defects, neurological and cardiac conditions.
2. *Observation and advanced study of health problems of handicapped children.*—Includes observation, clinical demonstration, and special lectures by medical specialists.
3. *Education and care of the physically handicapped.*—Study of school programs and educational adaptations needed by children who have crippling and special health conditions.
4. *Education and care of the cerebral palsied child.*—Causes and effects of various types of cerebral palsy; educational programs and equipment for the cerebral palsied; role of various specialists.
5. *Education of the homebound.*—Instructional, social, and vocational problems of the child who requires home teaching.
6. *Observation and student teaching of the physically handicapped.*

C. SPECIALIZED COURSES IN THE SEQUENCE FOR TEACHERS OF DEAF AND HARD-OF-HEARING CHILDREN

1. *The auditory and vocal mechanisms.*—Covers basic structures and functions of the organs of hearing and speech.
2. *Advanced anatomy of physiology of the vocal mechanisms.*—Includes demonstration, animal dissection, and discussion of experimental techniques for the study of hearing.
3. *The measurement of hearing.*—Basic principles of psychophysics of hearing; screening and other audiometric techniques.
4. *Special methods of teaching the deaf.*—Special methods of teaching the deaf in the elementary grades; with particular attention to the development of language.
5. *Teaching of speech to the deaf.*—Includes development of speech in young deaf children, phonetic aspects of speech, physics of sound, testing of hearing, group hearing aids.
6. *Basic electronics and physicoacoustics as applied to audiology and speech.*—Includes simple fundamentals of electricity, physics of sound, and psychoacoustics.
7. *Advanced histology and pathology of the ear.*—Includes use of models and animal specimens.
8. *Measurement of hearing.*—Advanced puretone audiometry.
9. *Observation and student teaching of the deaf.*—Given at the Lexington School for the Deaf.
10. *Student teaching of the deaf.*—Given at the New York League for the Hard-of-Hearing.
11. *Methods of teaching lipreading to the hard-of-hearing.*—Lipreading theory and practice.
12. *Applied audiology.*—Principles and techniques of auditory rehabilitation.
13. *Audiological instrumentation.*—Familiarization course in acoustic and electronic instruments used in audiology and speech correction.
14. *Seminar in audiology.*—Includes work on individually selected projects.
15. *Auditory training for the hard-of-hearing.*—Orientation to the purposes, principles, and methods of training individuals in the use of residual hearing.

D. SPECIALIZED COURSES IN THE SEQUENCE IN SPEECH CORRECTION

NOTE. Certain of the courses in part C above may be appropriate for students in this sequence.

1. *English phonetics.*—Introduction to the study of English speech sounds, stress, phrasing, and intonation. Practice in reading phonetic texts and in ear training is given. The symbols of the International Phonetic Association alphabet are used.
2. *Speech development and correction.*—Fundamentals of voice and speech production; techniques, materials, and remedial procedures.

3. *Speech pathology*.—Dividers of articulation, phonation, rhythm, and symbolization; classification, diagnosis, and therapy.
4. *Speech pathology laboratory*.—Demonstration, supervised observation, and practical experience in improving the speech of individuals and groups.
5. *Remedial speech laboratory*.—Observation and supervised teaching of individual and groups with speech handicaps.

B. SPECIALIZED COURSES IN THE SEQUENCE FOR TEACHERS OF MENTALLY RETARDED CHILDREN

1. *Psychology of mentally retarded children*.—Courses, classification, and characteristics of the mentally retarded.
2. *Programs, materials, and methods for teaching the mentally retarded*.—School organization, instructional materials, methods, and records.
3. *Occupational education for the mentally retarded*.—Employment opportunities, job analysis, guidance, and placement procedures.
4. *Occupational skills for the mentally retarded*.—Concrete experiences are provided with the actual materials and situations used in occupational education.
5. *Tests and remedial work for the mentally retarded*.—Formal and informal tests, diagnostic and remedial procedures and demonstrations.
6. *Observation and student teaching of the mentally handicapped*.

Ohio State University, Columbus, Ohio

Programs of study are offered at the bachelor's master's and doctoral levels in speech and hearing and the mentally retarded.

A. GENERAL COURSES DEALING WITH ALL OR MOST AREAS OF SPECIAL EDUCATION

1. *Exceptional children*.—A general survey of physical, mental, and social factors which create exceptional behavior in children.
2. *The intellectual deviate*.—A study of different types of children whose intellectual capacities require special understanding.
3. *Delinquent children*.—The meaning and significance of delinquency; its psychological basis, causes, and prevention.
4. *Psycho-educational diagnosis and treatment*.—Clinical use of test material in the diagnosis of special disabilities and difficulties in school work.
5. *Principles of treating the problem child*.—A survey of treatment procedures and resources including the school environment and methods of altering attitudes of parent and child.
6. *Preparation of handicapped children for post-school adjustment*.—A study of what schools can do for handicapped children in helping them make successful adjustments to employment, family, and community living.
7. *Seminar in special education*.—Advance course to consider research problems in terms of the special interests of the students.
8. *The education of exceptional children*.—History and development of special schools and classes; types defined; financing programs; selection of teachers.
9. *Methods of dealing with exceptional children in schools*.—Review and evaluation of procedures, methods, and types of school organization.

B. SPECIALIZED COURSES IN THE SEQUENCE FOR SPEECH AND HEARING SPECIALISTS

1. *Anatomy, physiology, and pathology of the ear and vocal mechanism*.—Study of structure, functions, and diseases of the ear and vocal mechanisms and associated structure.

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2. *Hearing and audiometric methods.*—Includes orientation of individual and group hearing tests and interpretation of audiometric tests.
3. *Hearing conservation and pathology.*—Introduces the student to the area of hearing therapy.
4. *Lipreading.*—Includes foundation procedures⁴ and fundamental exercises with opportunity for practice.
5. *Lipreading clinic.*—Clinical application of principles learned in "lipreading."
6. *Audiometry; principles and practices.*—Special tests of hearing and evaluation and selection of hearing aids.
7. *Speech pathology I and II.*—Consideration of voice deviation, articulation disorders such as cleft palate, stuttering, and speech retardation.
8. *Clinical principles in speech correction.*—Emphasis on examination, diagnosis, and correction of speech disorders.
9. *Clinical practice in speech correction.*—Includes a wide range of experiences.
10. *Methods and techniques in speech and hearing therapy.*—Study will be made of equipment and materials in diagnosis and therapy of speech disorders.

C. SPECIALIZED COURSES IN THE SEQUENCE FOR TEACHERS OF THE MENTALLY RETARDED

1. *Introduction to the education of the mentally retarded.*—Critical study of the various methods used in teaching mentally retarded.
2. *Practicum in program planning for slow-learning children.*—Appraisal of philosophy and factors in programs for children from kindergarten through secondary level.
3. *Supervised student teaching in special classes.*—For mentally retarded.

Wisconsin State College, Milwaukee, Wis.

The division of exceptional children offers a Bachelor's program for teacher-candidates in the following areas of exceptionality: education of deaf and hard-of-hearing children, speech correction, and education of mentally retarded children. Persons in the Master's program may major in either education of deaf and hard-of-hearing children, or education of mentally retarded children.

A. GENERAL COURSES DEALING WITH ALL OR MOST AREAS OF EDUCATION FOR EXCEPTIONAL CHILDREN

1. *Psychology of exceptional children.*—Designed to give the student a broad general overview of the significant psychological problems characteristic of all types of exceptional children.
2. *Design and crafts for the handicapped.*—Designed to meet the needs of the handicapped.

B. SPECIALIZED COURSE IN THE SEQUENCE FOR TEACHERS OF DEAF AND HARD-OF-HEARING CHILDREN

NOTE. Certain of the courses in part B below are included in this sequence.

1. *Audiometric testing and hearing aids.*—Clinical practice in testing of hearing, physics of sound; selection and use of hearing aids.
2. *Education of the deaf (A and B).*—Lipreading; auditory training; speech development; language development, curriculum construction; field trips.
3. *Language problems of the deaf.*—Individual conferences on planning language programs for the deaf.

4. *Student teaching with deaf children*.—Supervised observation and student teaching.
5. *Teaching of lipreading*.—Extant systems of lipreading, teaching techniques, preparation of original materials, and classroom organization.

C. SPECIALIZED COURSES IN THE SEQUENCE FOR SPEECH CORRECTIONISTS

1. *Speech correction (A and B)*.—The causes and treatment of speech defects and disorders.
2. *Speech correction in the public schools*.—Consideration of speech correction as an educational field; organization, management, and ethics for the public school speech correctionists.
3. *Anatomy and physiology of the speech and hearing mechanism*.—Anatomy, function, and hygiene of the organs of speech and hearing.
4. *Applied phonetics*.—Kinesthetic aspects of speech, ear training, various phonetic alphabets.
5. *Clinical practice in speech correction*.—Supervised practice in examining and therapy in the speech clinic.
6. *The psychology of speech*.—Psychological principles involved in speech, application to speech education.
7. *Student teaching in speech correction (I and II)*.
8. *Binet testing*. (See Mentally retarded.)

D. SPECIALIZED COURSES IN THE SEQUENCE FOR TEACHERS OF MENTALLY RETARDED CHILDREN

1. *Psychology of mental deficiency*.—Nature and causes of mental deficiency, social programs of adjustment and control; field trips.
2. *Education of the mentally handicapped*.—Techniques of teaching the mentally handicapped; curriculum construction.
3. *Student teaching with the mentally handicapped*.—Specialized observation and student teaching.
4. *Binet testing*.—Administration and interpretation of the Revised Stanford Binet.

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APPENDIX A. The Office of Education Study "Qualification and Preparation of Teachers of Exceptional Children"

THE OFFICE OF EDUCATION has long been aware of the need for intensive analysis on a nationwide scale of professional standards and the opportunities for the preparation of teachers of exceptional children. State directors of education have been asking for information which would give them greater insight into professional backgrounds needed by their staff in special education. Local school systems have expressed their need for more objective guides for the selection of teachers of exceptional children. College and university personnel have asked for an objective basis for developing curricula for teacher preparation.

The Association for the Aid of Crippled Children, Inc., of New York City, recognizing the values to be gained from a nationwide study of the qualification and preparation of special education personnel has given special cooperation to the project.

The director of the Study is being counseled by two committees. One is an Office of Education Policy Committee. It is the function of this committee to assist the director in management and personnel aspects of the Study. The other is a national committee of leaders in special education from various parts of the United States. It is the function of this committee to help identify the problems, to assist in the development of the design of the Study, and to work otherwise with the director in carrying the project forward.

The Study also has the advice of a number of consultants who review written material and make suggestions as to personnel and procedures. A complete list of these committee members and consultants appeared on page n.

Two techniques are being used to study the qualification and preparation needed by special education personnel: First, a number of outstanding specialists are seeking, through committee work, to describe the distinctive competencies needed by teachers of the blind, crippled, deaf, gifted, hard-of-hearing, mentally retarded, partially seeing, socially maladjusted, special health cases, and speech-handicapped children. This approach is also being applied to the competencies of State and local directors and

supervisors of special education, and to personnel of colleges and universities engaged in teacher-preparation programs in special education. The specialists are serving on 13 "Competency Committees." Each committee is preparing a statement of the skills, understandings, and knowledge needed by personnel in its area of specialization.

Second, through the medium of a series of inquiry forms, special education personnel in each of the areas described above have had the opportunity to express their views on the distinctive skills and competencies they consider basic for a teacher of exceptional children in their specialized area. Through these inquiry forms, information has also been gathered on standards of State and local school systems for special education personnel, and on existing college and university programs for the preparation of teachers of exceptional children.

The design of the Study includes a series of conferences, one of which was a workshop which was held after the data had been prepared for final review. The occasion provided opportunity for review and interpretation of data, for a free exchange of views, and for the development of suggestions and recommendations.

The Study has developed in such a way as to provide opportunity for educators at all levels, and in all States, to work together on a problem basic to educating exceptional children. More than 2,000 persons have supplied information through the series of inquiry forms. Approximately 150 outstanding special educators are serving on Competency Committees. Taking part, too, are numerous public and private agencies concerned with exceptional children who have given generously in constructive suggestions, and otherwise supported the project. In all, it is estimated that more than 2,500 persons are contributing to this project.

Appendix B.—Number of Students, Degrees Granted, and Faculty Members in Special Education Reported by Colleges and Universities Which Offered Sequences of Preparation During the Academic Year 1953-54.

State, institution, and area of exceptionality	NUMBER OF STUDENTS					DEGREES GRANTED ²			FACULTY MEMBERS			
	Majoring in specialized areas		Taking single courses in specialized areas ¹			Bachelor's	Master's	Doctor's	Full-time special education ³	Full-time part-time special education ⁴	Part-time personnel ⁵	
	Under-graduate	Graduate	Under-graduate	Graduate	C						G	
												Master's Doctor's
1	2	3	4	5	6	7	8	9	10	11	12	13
Total	2,996	1,397	208	3,442	2,270	988	516	45	253	144	155	126
ALABAMA												
University of Alabama: Speech correction	20	15		20		3	7		4	1		8
ARIZONA												
University of Arizona: Speech correction	10					3					2	
Speech and hearing											1	
ARKANSAS												
University of Arkansas: Speech correction	11	1		8		2			1			

See footnotes at end of table.

Appendix B.—Number of Students, Degrees Granted, and Faculty Members in Special Education Reported by Colleges and Universities Which Offered Sequences of Preparation During the Academic Year 1953-54—Continued

State, institution, and area of exceptionality	NUMBER OF STUDENTS				DEGREES GRANTED ²			FACULTY MEMBERS				
	Majoring in specialized areas		Taking single courses in specialized areas ¹		Bachelor's	Master's	Doctor's	Full-time special education ³	Full-time part-time special education ⁴	Part-time personnel ⁵		
	Under-graduate	Graduate	Under-graduate	Graduate						C	G	
												Master's Doctor's
1	2	3	4	5	6	7	8	9	10	11	12	13
CALIFORNIA												
Chico State College:												
Speech correction												
Speech and hearing						1						
College of the Pacific:	5			35						2		
Speech correction	12	4		25	6	5	2					
Speech and hearing	1	1		11	1	3	3					
Socially maladjusted; speech and hearing ⁶												
Fresno State College: Speech correction	14	10		30		3			1	1	1	
Los Angeles State College:									1	2	1	
Deaf												
Mentally retarded		12			20				1		2	
Speech correction		20			85				1		2	
Speech and hearing		15			50				2			
		6			25				1			
Occidental College: Speech correction												

See footnotes at end of table.

Appendix B.—Number of Students, Degrees Granted, and Faculty Members in Special Education Reported by Colleges and Universities Which Offered Sequences of Preparation During the Academic Year 1953-54—Continued

State, institution, and area of exceptionality	NUMBER OF STUDENTS				DEGREES GRANTED ³			FACULTY MEMBERS				
	Majoring in specialized areas		Taking single courses in specialized areas ¹		Bachelor's	Master's	Doctor's	Full-time special education ³	Full-time part-time special education ⁴	Part-time personnel ⁵		
	Undergraduate	Graduate	Undergraduate	Graduate						C	G	
1	2	3	4	5	6	7	8	9	10	11	12	13
COLORADO												
University of Denver:												
Mentally retarded	25	30	4							1	2	
Speech correction	25	14	11						1	1		
Speech and hearing		4								1		1
FLORIDA												
Florida State University:												
Mentally retarded	4	1	1			2						
Speech correction	8	5							1			
Speech and hearing												
Overall ⁶											1	

University of Florida

See footnotes at end of table.

Appendix B.—Number of Students, Degrees Granted, and Faculty Members in Special Education Reported by Colleges and Universities Which Offered Sequences of Preparation During the Academic Year 1953-54—Continued

State, institution, and area of exceptionality	NUMBER OF STUDENTS				DEGREES GRANTED ²	FACULTY MEMBERS						
	Majoring in specialized areas ³		Taking single courses in specialized areas ¹			Bachelor's	Master's		Full-time special education ⁴	Full-time part-time special education ⁴	Part-time personnel ⁵	
	Under-graduate	Graduate	Under-graduate	Graduate			Doctor's					
	2	3	4	5	6	7	8	9	10	11	12	13
Illinois—Continued												
Southern Illinois:												
Mentally retarded	7	10		32	30	2	4		1	3		
Speech correction	15	4				1	2		3			
Speech and hearing	1											
University of Chicago:												
Socially maladjusted		11	2		50				1		1	
Speech correction					10							
University of Illinois:												
Deaf	9	1	2			9	1				1	1
Mentally retarded	4	3	4			4	3					
Speech correction	18	10		10	3	21	5		3			6

See footnotes at end of table.

Appendix B.—Number of Students, Degrees Granted, and Faculty Members in Special Education Reported by Colleges and Universities Which Offered Sequences of Preparation During the Academic Year 1953-54—Continued

State, institution, and area of exceptionality	NUMBER OF STUDENTS				DEGREES GRANTED ²			FACULTY MEMBERS				
	Majoring in specialized areas		Taking single courses in specialized areas ¹		Bachelor's	Master's	Doctor's	Full-time special education ³	Full-time part-time special education ⁴	Part-time personnel ⁵		
	Under-graduate	Graduate	Under-graduate	Graduate						C	TG	
1	2	3	4	5	6	7	8	9	10	11	12	13
KANSAS—Continued												
Municipal University of Wichita—Continued	60	20					2		2			
Speech correction												
Speech and hearing ⁶												
Crippled, deaf, and speech correction						5						
Crippled, hard-of-hearing, and speech correction						5						
Crippled and speech correction						10						
University of Kansas (Kansas City and Lawrence):												
Deaf		8					1		1		1	1
Hard-of-hearing					5				2			
Mentally retarded		5	2									
Socially maladjusted		10	1		110							
Speech correction	32	22	1	54	37	13	3		4	2		1

KENTUCKY

University of Kentucky:
Speech correction.....
Speech and hearing.....

LOUISIANA

Louisiana State University: Speech correction.....

MARYLAND

University of Maryland:
Speech correction.....
Speech and hearing.....

MASSACHUSETTS

Boston University:
Blind.....

Speech correction.....
Speech and hearing.....

Emerson College:
Speech correction.....

Speech and hearing.....

Smith College: Deaf.....

MICHIGAN

Michigan State Normal College:
Crippled.....

Deaf.....

Mentally retarded.....

Partially seeing.....

Speech correction.....

Crippled and mentally retarded.....

Crippled, deaf, and mentally retarded.....

See footnotes at end of table.

2	6	1	15	5	1	3	4
8	5	4	44		3	1	
30	10		120	3	4	3	3
				10			
10	30	5	10	5	15	3	
			5	15		2	
43	2		1	2	11	3	1
12						4	1
						1	1
						(11)	
23							1
20							2
18							
5							1
							1
							2

Appendix B.—Number of Students, Degrees Granted, and Faculty Members in Special Education Reported by Colleges and Universities Which Offered Sequences of Preparation During the Academic Year 1953-54—Continued

State, institution, and area of exceptionality	NUMBER OF STUDENTS					DEGREES GRANTED ²			FACULTY MEMBERS			
	Majoring in specialized areas		Taking single courses in specialized areas ¹			Bachelor's	Master's	Doctor's	Full-time special education ³	Full-time part-time special education ⁴	Part-time personnel ⁵	
	Under-graduate	Graduate	Under-graduate	Graduate	C						G	
												Master's Doctor's
1	2	3	4	5	6	7	8	9	10	11	12	13
MICHIGAN—Continued												
Wayne University:												
Crippled						6	4				3	
Deaf						4	2				4	
Hard-of-hearing						14	8				1	
Mentally retarded						2					4	
Partially seeing								1			1	
Socially maladjusted						2	1				1	
Special health problems						10	4				2	
Speech correction									1	3		
Overall ⁶												
Western Michigan College of Education:												
Speech correction	47	8		132	2	14	3		2		1	
Speech and hearing												

MINNESOTA

University of Minnesota:

Crippled.....
 Mentally retarded.....
 Speech correction.....
 Speech and hearing.....
 Overall.....

3
6
12
3
50

1
2
3
3

5
6
6

.....
.....
.....
.....
.....

MISSISSIPPI

Mississippi Southern College:

Speech correction.....
 Speech and hearing.....

8
2
6

1
1
1

.....
.....
.....

.....
.....
.....

University of Mississippi:

Speech correction.....
 Speech and hearing.....

15
2
30
5

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MISSOURI

Central Missouri College: Speech correction

St. Louis University: Speech correction

Southwest Missouri State College:

Speech correction.....

University of Missouri: Speech correction

Washington University: Deaf and hard-of-hearing; speech correction

NEBRASKA

University of Nebraska: Speech and hearing

NEW JERSEY

New Jersey State Teachers College:

Mentally retarded.....
 Speech correction.....
 Speech and hearing.....
 Overall.....

23
35
10
135

10
5
5
1

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See footnotes at end of table.

State, institution, and area of exceptionality	NUMBER OF STUDENTS				DEGREES GRANTED ²				FACULTY MEMBERS ⁶				
	Majoring in specialized areas		Taking single courses in specialized areas ¹										
	Undergraduate	Graduate	Undergraduate	Graduate	Bachelor's	Master's	Doctor's	Full-time special education ³	Full-time part-time special education ⁴	Part-time personnel ⁵			
	1	2	3	4	5	6	7	8	9	10	11	12	13
NEW YORK													
Brooklyn College:													
Mentally retarded			25			28		13			1	1	
Speech correction	36		40		116	60	32	11		3			
Speech correction and mentally retarded ⁸										1			
City College of the City of New York:													
Mentally retarded	6		30					4		1		1	
Hunter College of the City of New York:													
Blind			25			10							
Crippled			54			21				1		2	
Deaf			17			24				1		2	
Gifted			16			20					1	3	
Partially seeing			7			6							
Special health problems			16			18						2	
Overall ⁹						93							

See footnotes at end of table.

Appendix B.—Number of Students, Degrees Granted, and Faculty Members in Special Education Reported by Colleges and Universities Which Offered Sequences of Preparation During the Academic Year 1953-54—Continued

State, institution, and area of exceptionality	NUMBER OF STUDENTS				DEGREES GRANTED ³			FACULTY MEMBERS				
	Majoring in specialized areas		Taking single courses in specialized areas ¹		Bachelor's	Master's	Doctor's	Full-time special education ²	Full-time part-time special education ⁴	Part-time personnel ⁵		
	Under-graduate	Graduate	Under-graduate	Graduate						C	G	
												Master's Doctor's
1	2	3	4	5	6	7	8	9	10	11	12	13
Ohio												
Bowling Green State University:												
Speech correction				69	9							3
Speech and hearing	60	5		30	4	20	4		3			
Kent State University:												
Mentally retarded	30	12				14	3		2		1	1
Speech correction	45	10		92	9				4		1	1
Deaf and hard-of-hearing	30	4		6		14	5		2		2	2
Speech correction, deaf and hard-of-hearing						25	18					
Ohio State University:												
Mentally retarded	5	25				10	8		4			
Speech correction	2	10		17	16							
Speech and hearing						12	6		1	1		
Mentally retarded and speech correction ⁶												
Overall ⁷				76	27							

	60	3	86	10	15	4	3	3	2
Ohio University:									
Speech correction.									
Speech and hearing.									
Western Reserve University:									
Speech correction.	12	8	6	13	2	9	2		
Deaf and hard-of-hearing.	13	2	11	3	3	6	1		
Speech and hearing.							5		
Oklahoma									
University of Oklahoma: Mentally retarded.	20	20	10	70	1	6	1	1	
University of Tulsa:									
Speech correction.	12	5					1		1
Speech and hearing.	2	3						1	
Pennsylvania									
Franklin and Marshall College:									
Speech and hearing.		8		4				2	
Marywood College: Mentally retarded.			3		3		2		
Mount Mercy College: Speech correction.	17		7		5		1		1
Pennsylvania State University:									
Gifted.	2	2		14					
Mentally retarded.	12	7	6	12	3				
Speech correction.	25	11	60	5	6	4	4		12
Speech and hearing.		1		2			2		
Gifted and mentally retarded.							1		
State Teachers College (Bloomsburg):									
Mentally retarded.	10				4				
Speech and hearing.	29		60		18		1	5	
State Teachers College (California):									
Mentally retarded.	2		20		2		2	3	
Speech correction.	26		5		1		1		
Temple University: Speech correction.	2	20		10			3		5

Appendix B.—Number of Students, Degrees Granted, and Faculty Members in Special Education Reported by Colleges and Universities Which Offered Sequences of Preparation During the Academic Year 1953-54—Continued

State, institution, and area of exceptionality	NUMBER OF STUDENTS			DEGREES GRANTED ²			FACULTY MEMBERS		
	Majoring in specialized areas		Taking single courses in specialized areas ¹	Bachelor's	Master's	Doctor's	Full-time special education ³	Full-time part-time special education ⁴	Part-time personnel ⁵
	Under-graduate	Graduate							
1	2	3	4	5	6	7	8	9	10
PENNSYLVANIA—Continued									
University of Pittsburgh:									
Deaf	5	15							2
Mentally retarded		15							1
Speech correction		15	5		30				
Speech and hearing		10							4
Deaf; speech and hearing ⁶									3
SOUTH DAKOTA									
University of South Dakota:									
Speech correction	4	1				2			
Speech and hearing									1
Overall ⁷				24	1				
				20	2				
				25	20				

Appendix B.—Number of Students, Degrees Granted, and Faculty Members in Special Education Reported by Colleges and Universities Which Offered Sequences of Preparation During the Academic Year 1953-54—Continued

PREPARATION OF TEACHERS OF EXCEPTIONAL CHILDREN												
State, institution, and area of exceptionality	NUMBER OF STUDENTS				DEGREES GRANTED ²			FACULTY MEMBERS				
	Majoring in specialized areas		Taking single courses in specialized areas ¹		Bachelor's	Master's	Doctor's	Full-time special education ³	Full-time part-time special education ⁴	Part-time personnel ⁵		
	Undergraduate	Graduate	Undergraduate	Graduate						C	G	
1	2	3	4	5	6	7	8	9	10	11	12	13
UTAH												
University of Utah:												
Speech correction.....	38	5	2				3		3			5
Deaf and hard-of-hearing.....	35	8	3				2		4			3
VIRGINIA												
University of Virginia:												
Speech correction.....	3	5					5					1
Speech and hearing.....									1			1
WASHINGTON												
University of Washington: Speech and hearing.....	25	5		40	20	8	4	1	4	1	1	

WISCONSIN

Marquette University: Speech correction	70	1	11	2	21	4	1	1	1
University of Wisconsin: Speech correction	63	11	4	4	14	1	1	5	1
Wisconsin State College: Mentally retarded	55			15	16	3	1		
Speech correction	18				1		1		
Deaf and hard-of-hearing	42				5		1		
Overall							1		
WYOMING									
University of Wyoming: Speech correction	6	1		38	2	1	1		1
DISTRICT OF COLUMBIA									
Catholic University of America: Speech correction		5		7		3			
Gallaudet College: Deaf	14	10		30	13	10	1	3	9
George Washington University: Speech correction	10			15	10		2		

¹ Student enrollment in specialized single courses is included in this table only for those colleges which reported a complete sequence for the academic year 1953-54, exclusive of summer session. Students enrolled in general courses in special education or taking single courses in sequential curricula were tabulated.

² Degrees granted Jan. 1 to Dec. 31, 1953.

³ Staff members with full-time appointments, and with full-time duties in special education.

⁴ Staff members with full-time appointments, and with part-time duties in special education.

⁵ Staff members with only part-time appointments.

⁶ Persons holding positions outside the college.

⁷ Graduate students.

⁸ Staff member(s) having responsibility in 2 or more separate sequences.

⁹ In columns 8 and 9, this term includes students enrolled in survey courses in special education; in columns 10 and 11 it refers to staff members having responsibility for overall programs of special education.

¹⁰ Degree granted in education of exceptional children.

¹¹ 11 staff members at Clarke School for the Deaf participate in the preparation of teachers of the deaf through affiliation with the following 3 colleges: Smith College, Syracuse University, and the University of Massachusetts.

APPENDIX C. Excerpts from inquiry form used in collection of data

THE OFFICE OF EDUCATION STUDY

Qualification and preparation of teachers of exceptional children

INQUIRY FORM EXC-2B: To be filled out *only* by persons responsible for *directing* or *coordinating* (in one or more areas) the college or university program for the specialized preparation of teachers of exceptional children.

Miss
Mrs.

- 1.1 Your Name Mr Date
- 1.2 Official Position
(Specify—Director of Special Education, Head of the Speech Department, etc.)
- 1.3 Official Title
(Specify—Associate Professor, etc.)
- 1.4 College or University City State
- 1.5 Do you hold a full-time staff appointment at the college or university?
Yes ____ No ____ If your answer is "no," check \checkmark the figure below which comes nearest to the amount of time of your appointment.
1/5 ____ 1/4 ____ 1/3 ____ 2/3 ____ 3/4 ____ 4/5 ____
- 1.6 In which area or areas of Special Education do you have *direct* administrative (directing and/or coordinating) responsibility?
Check \checkmark as many as applicable.)
- | | | |
|--|--|---|
| <input type="checkbox"/> Blind | <input type="checkbox"/> Gifted | <input type="checkbox"/> Socially Maladjusted ¹ |
| <input type="checkbox"/> Crippled ¹ | <input type="checkbox"/> Hard of Hearing | <input type="checkbox"/> Special Health Problems ² |
| <input type="checkbox"/> Deaf | <input type="checkbox"/> Mentally Retarded | <input type="checkbox"/> Speech Defective |
| <input type="checkbox"/> Partially Seeing | <input type="checkbox"/> Other (specify): | |

A. Please complete the table below to indicate the number of persons in your division or section who are engaged during this *regular academic year* (1953-54) in the specialized preparation of teachers of exceptional children, or of speech and hearing specialists.

Throughout the inquiry form:

- ¹ The term "crippled" includes the cerebral palsied.
² The term "socially maladjusted" includes the emotionally disturbed.
³ The term "special health problems" includes children with cardiac conditions, tuberculosis, epilepsy, and below-par conditions.

NOTE: STAFF, INCLUDING YOURSELF, TO BE RECORDED *ONCE* ONLY UNDER THE AREA TO WHICH THEY DEVOTE THE MAJOR PORTION OF THEIR TIME.

Staff members	Duties in 2 or more areas ¹	Blind	Crippled	Deaf	Gifted	Hard of hearing	Mentally retarded	Partially seeing	Socially mal-adjusted	Special health problems	Speech defective
<p>Number of regular academic year staff (1953-54):</p> <p>NOTE: DO NOT INCLUDE SUMMER SCHOOL STAFF.</p> <p>1. Staff members on <i>full-time</i> college or university appointments, with <i>full-time</i> college duties in special education or speech and hearing (exclude those who are solely demonstration, critic personnel)</p> <p>2. Staff members on <i>full-time</i> college or university appointments, with <i>part-time</i> college duties in special education, or in speech and hearing, and part-time duties in other departments or divisions (exclude those who are solely demonstration and critic personnel)</p> <p>3. Staff members on <i>part-time</i> college or university appointments, with college duties in special education, or in speech and hearing (exclude those who are solely demonstration and critic personnel), but who hold other positions outside the college or university (exclude graduate students in residence)</p> <p>4. Graduate students in residence with part-time college or university appointments, teaching courses in special education or speech and hearing</p> <p>5. Demonstration and critic teachers and specialists, on <i>full-time</i> college or university appointments</p> <p>6. Demonstration and critic teachers and specialists, on <i>part-time</i> college or university appointments</p> <p>7. Other (specify)</p>											

¹ For each staff member with duties in 2 or more areas, indicate the combination of areas of specialization.

(Sample: Category 1. Combination: Deaf, hard of hearing, crippled.)

90 PREPARATION OF TEACHERS OF EXCEPTIONAL CHILDREN

B. Please complete the table below to indicate the undergraduate and graduate enrollment in your program at a specific date *during this regular academic year* (1953-54) for students majoring in a specialized area, and for those taking single course(s) only.

NOTE: Select an arbitrary date¹ (favorable to your program) between September 1953 and March 1954 and use this frame of reference for all of the areas of exceptionality in which you have offerings.

DO NOT INCLUDE SUMMER SCHOOL ENROLLMENT

Area	Enrollment during the regular academic year, 1953-54				
	Majoring in a specialized area			Single course(s) in specialized areas	
	Under-graduate program	Master's program	Doctor's program	Under-graduate program	Graduate program
Blind					
Crippled					
Deaf					
Gifted					
Hard of hearing					
Mentally retarded					
Partially seeing					
Socially maladjusted					
Spec. health problems					
Speech defective					
Survey courses in exceptional children					

¹ Date for which enrollment is given:

C. Please complete the table below to indicate the number of persons majoring in the various areas of exceptionality, who received the following degrees during the calendar year January 1, 1953 to December 31, 1953.

Major in the area of the—	Bachelor's degree	Master's degree	Doctor's degree	
			Ph. D.	Ed. D.
Blind				
Crippled				
Deaf				
Gifted				
Hard of hearing				
Mentally retarded				
Partially seeing				
Socially maladjusted				
Special health problems				
Speech defective				

ADDENDA

The following sequences of preparation for teachers of exceptional children were reported after the bulletin had gone to press:

ALABAMA

Birmingham-Southern College in Birmingham has reported a sequence in speech and hearing.

ARKANSAS

Arkansas State College at Conway offers a sequence of preparation for teachers of deaf children.

MISSOURI

The University of Missouri at Columbia has reported a sequence for teachers of crippled children.

NEW YORK

The State University of New York, College for Teachers at Buffalo, has a sequence of preparation for teachers of the partially seeing.

NORTH CAROLINA

Eastern Carolina College in Greenville has reported a sequence in speech correction.

OKLAHOMA

Oklahoma College for Women in Chickasha has a sequence of preparation for teachers of deaf children.