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WILLIAM JOHN COOPER, Commissioner

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THE SPEECH DEFECTIVE SCHOOL CHILD

WHAT OUR SCHOOLS ARE DOING FOR HIM

By

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LETTER OF TRANSMITTAL

DEPARTMENT OF THE INTERIOR,
OFFICE OF EDUCATION,

Washington, D. C., May 25, 1931.

SIR: We are witnessing a great change in attitude toward the exceptional child. During the last two decades the needs of these children have received special study. Since cost makes it necessary to educate children in groups, we have been classifying the handicapped and attempting to work out methods of instruction adapted to their peculiar needs. To this movement the recent White House Conference has given added impetus. The keynote of that conference—that emphasis should be put upon the assets of children rather than upon their liabilities—has stirred teachers and laymen alike to renewed activity in behalf of the abnormal. There is no group of these children whose handicaps, when understood, can be remedied more completely than those having speech defects. Although in a small percentage of the cases highly specialized surgical aid is required, the great majority of them need only teachers who know their psychology and who have mastered the techniques of removing the complexes involved.

Respectfully submitted.

WM. JOHN COOPER,
Commissioner.

The SECRETARY OF THE INTERIOR.

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THE SPEECH DEFECTIVE SCHOOL CHILD

"This stammer in my address can never permit me to soar above the reach of a milliner's apprentice."—GOLDSMITH: *She Stoops to Conquer*.

I. DEFECTS OF SPEECH

Leigh Hunt, in his autobiography, relates of his master of Greek at Christ's Hospital, "He knocked out one of my teeth with the back of a Homer in a fit of impatience at my stammering."

The loss of a tooth by a pupil plagued with a speech defect of this nature would be a happy incident should the defect be removed along with that organ, but the cure is not so simple. Unless something specific in the way of training is done for the stammerer, his life drags on "so full of sorrow that it can hardly be said to be worth living." In fact, if the observation of the Rev. Charles Kingsley (a distinguished stammerer, though not distinguished because of his stammering) be true, the stammerer who is not cured does not usually live long, for "his continual depression of spirits wears out body as well as mind."

Fortunately, such unsympathetic persons as the master who struck Leigh Hunt do not frequently occupy the position of teacher in this day, but the child with a speech defect is often misunderstood, is allowed to suffer unnecessarily, and, except in a few large cities, he rarely receives special assistance in overcoming his affliction.

As regards the general public attitude toward those with speech defects, Dr. E. W. Scripture wrote in 1912:

It would be difficult to find a group of people more neglected by medicine and pedagogy than that of stutterers and lispers. The stuttering children that encumber the schools are a source of merriment to their comrades, a torment to themselves, and an irritating distraction to the teacher. As they grow older the stutterers suffer tortures and setbacks that only dauntlessness or desperation enables them to survive. The lispers that are so numerous in certain schools are a needless retardation to the classes. In most medical faculties no place is accorded to speech defects, and the same is true in schools of pedagogy.

The foregoing statement is still to a large extent true, although much careful study has been made into the conditions causing defective speech, and the knowledge so gained is being applied in public schools in a considerable number of cities. Elsewhere, parents, anxious to do what they can for their speech-defective children, are forced to send them (if they can afford it) to some special school

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where, at excessive cost, they receive an all too brief, even if well-conducted, training. The percentage of children who relapse into old habits of speech after such exotic schooling is very high.

While the above paragraph was being written two letters were laid on my desk. One from a small town of Iowa read, "I am a teacher in the ——— public schools. In the seventh grade we have a boy who stutters a great deal. Would you please send me bulletins on aid to those who have this affliction." The other letter was from a parent in a city of over 30,000 population asking for help in the home instruction of a stuttering child.

It is probable that the child mentioned in the first letter has passed through six grades of school without assistance for his "affliction"; and in the city of Ohio, from whence comes the second letter, nothing is done for the 50 or so stutterers and the many other school children with defective utterance.

WHAT IS A SPEECH DEFECT?

There are all degrees of defectiveness in speech, and there are few persons who possess a silver utterance. When we consider the extreme complexity of the physiological processes involved, it is a wonder that so many of us speak as well as we do. Those who are fluent in private often become defective under unusual circumstances, and the public speaker (glib enough with his intimates) who does not hem and haw (often to the amusement or annoyance of his hearers) is far from uncommon. This fact should be kept in mind by the teacher, for the child who stammers or stutters is in a like situation but with the very good reason that his nervous machinery governing speech, already faulty, is thrown farther out of function by the idea that others are watching and listening. Charles Kingsley, in a letter written at 38 years, says, "The fearful curse of stammering, which has been my misery from childhood, made me avoid an introduction to men to whom (I could see by one mesmeric glance) I should inevitably stammer." The prejudice of lack of sympathy brought about a super-stage fright in the presence of such a stranger.

In fact, a condition is not uncommon among school children (and adults) which goes deeper than speech and precludes adequate brain functioning with speech. Without speech defects in the ordinary sense these pupils can not express themselves adequately by word of mouth, but in written recitations they may equal or excel their fellows. Children who can not "tell what they know" orally should not be belittled, for they will rival others in all situations where the gift of ready speech is not required.

Speech defects, such as we are dealing especially with in this publication, are, as expressed by Ira S. Wile, "those abnormalities

which per se limit the possibilities of children and adults to realize to the utmost their potential power for uniting in the activities of the world." One may get along very well in many situations without being very fluent in public utterance, but when it comes to ordinary everyday vocal communications those who can not properly start or stop their vocal machinery or who can not produce the conventional sounds represented by the letters of a word are handicapped in proportion to their defectiveness, and they may be debarred altogether from certain pursuits. We have already spoken of their mental suffering and of their difficulties in school. They are constantly hampered in all manner of occupations. We have the interesting story of a boy in a city which for a number of years has employed teachers for speech-defective children. This boy was labored with most conscientiously, but it was evident to the teachers that he was not appreciating their efforts and was not doing his part. They finally told him as much. He was graduated from high school and was lost in the industrial world, being swallowed up by an automobile repair works. Some two years later he appeared at the office of the supervisor of speech correction and asked if he could enter a speech-correction class of the night school. The teacher wondered. She reminded him of the efforts previously made in his behalf. He humbly confessed his lack of appreciation of what had been done for him. In the office where he worked an employee in a position higher than his own had resigned. His employer frankly told the boy that he would like to advance him to the more responsible position but that he could not do so because of the boy's inability to answer a telephone, to properly attend to customers, or to meet other emergencies requiring the ordinary use of his speech organs. The boy was given a chance again in the night school, worked faithfully, and overcame his difficulty.

SPEECH DEFECTS AND THEIR ORIGIN

Heredity is believed to have an influence in the development of some speech defects, as has also imitation. Where the growing child is exposed to the example of a speech-defective parent one must be uncertain as to which influence is at work or which is most influential. As regards foreign accent or provincialism the cause is evident.

Some defects of speech are due to abnormal conditions, slight or serious, of the nose, the roof of the mouth, the lips, the jaws and teeth, tongue, or throat. As the child develops he naturally speaks with the least possible effort, and these "organic" defects affect the quality of the voice or the pronunciation of certain sounds. A few of these conditions can be improved in part by surgical procedures. Very

many defective pronunciations can be cured or improved by efforts directed to the proper use of the tongue, lips, etc.

Most cases of wrong speech sounds are due to bad habits set up in childhood and not corrected. * * * It is often possible by the application of scientific methods to obtain in a few minutes sounds which have been wrongly pronounced for years. This does not by any means complete the "cure" which is, in point of fact, only just begun; but the most important thing is achieved—it has been proved that the pupil *can* pronounce the sound which he has always thought and said he could not, and by means of carefully graded exercises, conscientiously practiced, it is possible eventually to effect a complete cure.¹

Stammering and stuttering (now looked upon as due to the same underlying cause)² have a more deep-seated and complex origin, for the fault is somewhere in the nervous machinery through which the speech organs are manipulated. The visible organs of speech are usually normal and indeed, at times, behave normally, but when something interferes with the outflow of nerve impulses from the brain, the visible organs go awry. The living wires get crossed and the current of nervous energy flows in unintended and ineffective channels. The person is in the situation of a skilled pianist performing on a well-constructed instrument, but whose fingers, under stress of excitement from being seen and heard, find their way involuntarily to the wrong keys.

Any enfeeblement of the general health or undue nervous excitement aggravates the condition of a confirmed stammerer just as it disturbs the accuracy of fine muscular coordination of the hands and fingers.

Doctor Holt describes the case of a child who, under unhygienic conditions in a city home, had been stuttering badly for months but was promptly and permanently cured by a brief sojourn in the country.

In the beginnings of speech, in the child's third and fourth years, when, apparently, desire runs ahead of ability for expression, a considerable proportion of children stutter, but in all but a few the defect disappears spontaneously within a few weeks or months. Most of the cases which become habitual begin, or are evidently serious, in the fifth or sixth years, but it would probably be more correct to say that faulty utterance is not considered a defect until this age, for most speech defectiveness begins before school age. The condition is then not likely to be overcome without help, and "there, perhaps, has never been a self-cured stammerer."³

¹ Ida C. Ward. *Defects of Speech*. New York, E. P. Dutton Company.

² The words are now used interchangeably.

³ That stammering is associated with abnormal nervous irritability is indicated by the fact that the condition has been produced in children in the course of thyroid treatment.

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KINDS OF DEFECTS AND NUMBER OF DEFECTIVE

While we have laid stress upon stammering and stuttering because of their special seriousness, other forms of defective speech need attention if the school child is to be what he wishes to be, and does what he desires to do in this world. The following classification of 3,017 speech-defective children in the Philadelphia schools was made in a recent year:

	Per cent
Lisping	33
Defective phonation (baby talk)	28
Foreign accent	18
Stammering and stuttering	7
Nasality	4
Lack of resonance	2
Hoarseness	2
Lalling	1
Other defects (including 2 cases of cleft palate)	5

The following classification of 16,213 cases is given by the Department of Speech Improvement of New York City in its report for 1928-29:

	Per cent
Lisping, different forms (lingual 37 per cent, lateral 13, nasal 1)	51
Stammering	23
Acute defective phonation	14
Acute foreign accent	2.5
Lalling	3.0
Dialectical intonation1
Nasality	1.2
Denasalization2
Organic defects (cleft palate, hypertrophied tonsils, etc.)	5.0

The speech-defective children cared for in the New York schools represent about 1.5 per cent of the enrollment. In Philadelphia it was nearer 1 per cent.

It will be noted that the terms used differ considerably in these classifications. Those sent us from other cities employ still other names for groups or subgroups. Stammering and stuttering stand out as well-defined cases, although these unfortunates may have additional defects to contend with.

In Detroit, where 3.8 per cent of the registration are taught, "stammering and allied impediments" total about 13 per cent, and "stammering combined with other defects of speech," 3 per cent. This is about 0.65 per cent of the total enrollment.

In Cleveland about 1.3 per cent of the pupils are in speech-correction classes, and of those so enrolled about 24 per cent are classed as stutterers.

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In 18 large cities the ratio of speech defectives to the total enrollment in a recent year was about 1.8 per cent.

In 20 cities of Wisconsin, all but one of which were under 100,000 population, the percentage of pupils in speech-correction classes in a recent year was about 4 per cent, but not all pupils are taught at one time, and the State supervisor estimates that in the schools having classes about 7 per cent of the pupils enrolled are in need of special instruction. Where speech correction is just begun the number of defectives in the total school population is much larger than after such work has been conducted for a number of years. In the 35 school districts of California in which speech work is conducted about 6 per cent of the enrollment are considered defective. Where no work has been done 9.5 per cent are reported defective. (See page 23.) Professor Stinchfield reports 18 per cent in the elementary grades in Madison, Wis., and finds 16 per cent of entering students at Mount Holyoke College defective. The number will depend very much on where the line is drawn between speech defectiveness and poor speech.

Among smaller cities, Melrose, Mass., with a school population of 4,016, reports 34 cases "serious enough to require special teaching." In Oshkosh about 5.6 per cent of pupils are considered defective. Doubtless the number of speech-defective children is not greater in the latter than in the former city, but in Melrose only the serious cases can be given special training.

The superintendent in a city without a special teacher having a school enrollment of 9,000 reports that there are only a few cases of defective speech in his schools. The statement will be received with some surprise, for unless his children differ very decidedly from those of other communities, at least 100 of them are seriously defective. Some examiners would find over 1,000 defective. It is quite possible, however, that the more serious cases (that especially attract attention) have dropped out of school, as they must all be tempted to do.

SPEECH DEFECTS AND MENTALITY

Because the stammering or stuttering child can not display normally his native ability, he has often been considered of low mentality. It was said of Charles I of England by a laudatory biographer that "his vocal impediment * * * was * * * to wise men an index of his wisdom * * * since there was never, or very rarely, known a fool that stammered." The statement in the last half of this seventeenth-century sentence is echoed in the twentieth-century remark of a speech-correction teacher in a large city to the effect that in 10 years' experience in speech work she "recalls only one case of stammering in which there was also a genuine mental deficiency.

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Besides Leigh Hunt, Charles Kingsley, and Charles I (whose "vocal impediment" is said to have had a very important influence on the course of English history), some other persons who were distinguished, despite their defective speech and by more than right of birth, were: Demosthenes, Aristotle, Æsop, Alcibiades, Cato, Virgil, Manzoni, Erasmus, Malherbe, Turenne, Boyle, Priestley, Lamb, Erasmus Darwin, Charles Darwin, Moses Mendelssohn, Cardon, Camille-Desmoulins, and the artist David. The child with defective utterance may well take heart from this distinguished company. Tradition has it that Demosthenes conquered his own defect. If the foregoing great men had been given the help now offered in many modern schools most of them would probably have been cured, for teachers of speech-defective pupils find the brightest profit most by their training.

Wallin found that "stuttering is more prevalent among normal, retarded, and backward children than among mental defectives." "Only one of our morons stuttered, while none of the imbeciles stuttered." However, defects of articulation are "distinctly more prevalent among mental defectives."⁴

Binet tests of children with speech defects in the St. Paul schools (about 1 per cent of the school population) showed that such children were neither duller nor brighter than other children. The median I. Q. for 402 pupils was 97.7.⁵

All studies of the subject in this country and abroad have shown retardation for speech-defective pupils, but this does not by any means hold of all such pupils. Wallin, from his survey in the St. Louis schools, concluded that "speech-defective pupils tend to be pedagogically retarded to a greater extent than non-speech defective."

SEX, RACE, AND AGE

Speech defects, especially stuttering, are at least twice as common among boys as girls. They are also about twice as frequent in the colored as in the white race. Lispering tends to cure itself or is overcome in a considerable percentage of school children as they grow older, but the tendency to spontaneous cure of stuttering at school age is very light, and not a few cases develop during school life.⁶

NEED OF ASSISTANCE

The speech-defective child is peculiarly in need of help from without, and at the same time the teacher who is to be of most assistance is in need of more understanding of the situation than one in any other

⁴ J. E. W. Wallin, *Speech Defective Children in a Large School*. Miami University, Bulletin XXV, No. 4, December, 1926.

⁵ Margaret Lima. *Speech Defects in School Children*. *Mental Hygiene*, 11:785, October, 1927.

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special work. "Success is obtainable by exercises in the hands of a teacher whose personality inspires the children with confidence and who recognizes that the benefit does not come from the exercises but from herself." One teacher of speech correction was the child of parents who both suffered from serious speech defectiveness. It is needless to say that she is a most successful worker.

The importance of the cooperation of the room teacher in the special education of the speech-defective child can not be overestimated, for, as Professor Fletcher has so well expressed it, "*for purposes of treatment the stutterer's environment must be made therapeutic.* We have been and, in a large measure, are still asking ourselves how to *drill* or how to *treat* the stutterer, in order to cure him of a 'defect of speech.' We should, rather, ask ourselves how we may environ him remedially so as to *recondition* him to his social world advantageously."* Where there is no special teacher these words apply as well, for the speech-defective child will do his best only in his most congenial social environment.

HISTORY

Attempts at special training of school children with speech defects is said to have started in Pottsdam, Germany, in 1886, and the movement soon spread throughout that country. Such work was introduced into schools of some of our large cities about 1910, and according to information recently collected, over 80 school systems now employ special teachers. Among cities with a population of 100,000 and over furnishing data, 15 started their speech-correction work in the years 1910-1919 and 15 in the next decade. Of cities 30,000 to 100,000, 3 began work in 1917-1919 and 27 since those years. The six smaller, with a population under 30,000, started their special work in 1920 to 1927.

II. SPECIAL WORK FOR SPEECH-DEFECTIVE CHILDREN IN CITIES

CITIES REPORTING

Eighty-four cities in 22 States and the District of Columbia report the employment of special teachers for speech-defective pupils. The general distribution of these cities as regards State and population (Census of 1920) is shown in the accompanying table.

* John M. Fletcher. *The Problem of Stuttering.* New York, Longmans, Green & Co.

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Cities giving special attention to speech-defective children

State	Population		
	100,000 and over	30,000 to 100,000	10,000 to 30,000
California.....	Los Angeles..... Oakland..... San Francisco.....	Berkeley..... Fresno..... Long Beach..... Pasadena..... San Diego..... San Jose..... Colorado Springs.....	
Colorado.....	Denver.....		
District of Columbia.....	Washington.....		
Illinois.....	Chicago.....		
Indiana.....		Gary..... Dubuque.....	
Iowa.....		Sioux City.....	
Louisiana.....	New Orleans.....		
Maryland.....	Baltimore.....		
Massachusetts.....	Boston.....		
Michigan.....	Fall River..... Detroit..... Grand Rapids.....	Jackson..... Highland Park..... Pontiac..... Flint.....	Melrose.....
Minnesota.....	Minneapolis..... St. Paul.....	Duluth.....	Mankato..... Winona.....
Missouri.....		Springfield..... Butte.....	
Montana.....			
Nebraska.....	Omaha.....		
New Hampshire.....		Manchester.....	
New Jersey.....	Jersey City..... Newark..... Paterson.....	Passaic.....	
New York.....	Buffalo..... New York City..... Yonkers.....	Jamestown..... Mount Vernon..... New Rochelle..... Schenectady..... Lakewood.....	
Ohio.....	Cincinnati..... Cleveland..... Columbus.....		
Pennsylvania.....	Philadelphia..... Reading.....	Altoona..... Erie..... Johnstown..... York.....	
Rhode Island.....	Providence.....		
Texas.....	Houston.....	El Paso.....	
Washington.....	Seattle.....	Tacoma.....	
Wisconsin.....	Spokane..... Milwaukee.....	Green Bay..... Kenosha..... La Crosse..... Madison..... Oshkosh..... Racine..... Sheboygan.....	Appleton..... Beloit..... Eau Claire..... Fond du Lac. ¹ Janesville. ¹ Manitowoc..... Marinette..... Wausau. ¹ Waukesha. ¹

Cities under 10,000 are Beaver Dam,¹ Kaukauna,¹ Watertown, and Wisconsin Rapids.

¹ Reported by State department of education.

The State department of California reports special work for speech-defective children in smaller cities and districts of that State, but the names of the cities are not given, and our letter of inquiry was sent only to cities having a population of 10,000 and over.

In our list 45.5 per cent of the cities with a population over 100,000 (1920) are represented, 20 per cent of cities of the second group, and about 0.5 per cent of those of the third group.

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One city of over 100,000 persons and two cities with a population between 30,000 and 100,000 report that they expect to employ special teachers for speech correction soon.

One city of the second class has been sending its speech-defective children to a free dispensary, but this year it hopes to have instruction given by its own teachers. Another city of this group assigns special cases to teachers who have had some theoretical and clinical training.

A city of the first class (not on our list) employs an "expert to give once each year at mid-term intensive lessons in correcting the speech of stammerers," and a city of the second group employs such a teacher "about every two years."

TEACHERS

None of the cities of 10,000 to 30,000 population employ more than 1 teacher, which means that there is 1 teacher to about 3,500 pupils enrolled (from 2,700 to 4,700).

In the second group (30,000 to 100,000), 9 cities report 2 teachers, 1 city, 3, and 1 city, 4. Dubuque reports a part-time teacher and Butte 1 teacher who also teaches retarded children. The cities having 1 teacher have an average school enrollment of about 15,000. The smallest of the group has about 5,500 pupils and the largest 26,000. The cities reporting 2 teachers have, on the average, about 12,000 pupils, an enrollment which would give 6,000 pupils per special teacher, or if 2 per cent of the children are defective, 120 to be taught by her. Two of the cities of this group have a school population of about 6,000, and hence there is a special teacher for 3,000 pupils. The city with 3 teachers has about 31,000 pupils, or over 10,000 pupils per special teacher. In the city with 4 teachers there is a total of about 10,000 pupils.

Among the largest cities, San Francisco reports 7 full-time and 62¹ part-time teachers, and Grand Rapids has 5 full-time teachers and 5 who teach for 1 hour a day.⁷ Cleveland has 5 full-time and 60 part-time teachers.⁸ Omitting these three cities, the average number of pupils per special teacher in this group is 17,000. The lowest number is about 36,000 and the largest is 44,000. In 11 of the 28 cities there is 1 teacher for about 10,000 pupils.

The director of special education of the Wisconsin Department of Public Instruction, Lavilla A. Ward, in her report for the biennium, 1926-1928, states that a teaching load of over 150 pupils is too great for successful work. In the cities of this State and also of California about 6 or 7 per cent of pupils in schools where instruction

¹ The 5 are "coach teachers" for children with special needs. They have had special training in speech correction.

⁷ The part-time teachers "are regular teachers in the grades or high schools who have classes for correcting speech defects after school hours." They receive extra pay.

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is given are enrolled in classes for the speech-defective, which would mean that there should be one teacher (at any rate in smaller communities where the grouping of children by defects must be small) for not over 3,750 pupils in attendance.

REQUIREMENTS

A considerable number (23) of the cities furnishing information mention that their teachers have had a "special course" in speech correction. Two of these mention mental hygiene as a part of the required course. Nine mention the requirement of a "major in speech" and one a "major in psychology with speech correction work." One mentions a "normal school course and 20 hours of speech correction" study. Two cities specifically require "special courses in addition to two years of normal school or four years of college education." Two cities ask for a "university training in speech correction, one year of clinical experience and three of teaching experience." In one city applicants must be eligible to teach in elementary schools and have had "at least two courses in speech correction." One city requires 4 units credit each in mental hygiene, articulatory effects, and nervous speech disorders.

The reports of the foregoing cities make no mention of experience as teacher along the usual lines.

One city requires experience as a regular teacher and special training; one, 2 years' experience in teaching and "work in speech clinics"; 2 demand a normal school training, 2 years' teaching experience, and then 1 year extra of special training in speech correction; 2 require a 2 years' normal school training, 1 year of teaching, "then 2 courses in speech correction work"; 1 asks for a "few years' experience as regular teacher and 1 year of special training under constant supervision of the director of speech correction." Another city asks an "A" rating as teacher and two courses in speech correction followed by university extension courses. In one city the teachers are trained by the supervisor of speech correction. No doubt those trained have been regular teachers.

Madison, Wis., furnishes us with the following detailed requirements for license to teach classes in defective speech:

* Title of course	<i>Required units</i>	Semester hours
Correction of speech disorders.....	3	3
Speech pathology.....	3	3
Advanced correction of speech disorders.....	3	3
Introduction of phonetics.....	3	3
Psychology of speech.....	3	3
Intelligence testing.....	4	4
Total.....	19	19

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Twelve units to be selected from the following courses

Advanced phonetics.....	3
Voice science.....	3
Individual differences and the measurement of intelligence.....	3
Motivation of human behavior.....	3
Personality traits.....	2
Psychology of emotions.....	2
Abnormal psychology.....	3
Social psychology.....	3
Methods of social case work.....	2
The individual and social adjustment.....	3
Zoology.....	5
Organic evolution.....	2
Heredity and eugenics.....	2
Health and hygiene.....	2
Physiology.....	4
Vocational guidance and counseling.....	2

Thirty-one units in speech and allied subjects constitute the minimum. The 12 optional units should be selected from at least 4 of the departments offering the courses listed. The above do not include the education courses which are required for the teacher's certificate. Majors in speech and education are preferred. The choice of the major should be approved by the department of speech.

Reading, Pa., furnishes the following:

Distribution of special professional courses and training for speech-correction classes

	Semester hours	
	Minimum requirements	Maximum allowance
1. Experience..... Teaching in approved special classes of this type, including classes for the partially deaf, or approved teaching in other school work. Experience may be counted up to 8 semester hours at the rate of 4 semester hours per year.	0	8
2. Content courses: Anatomy of the speech organs, phonetics, psychology of speech, psychology of atypical children, mental tests, physical education, etc.	6	12
3. Manual training, industrial and household arts, arts, crafts, etc.	0	4
4. Special methods or approved examination.....	4	8
Total required, 20¹.....		

¹ Approved examination credentials may be offered for 4 semester hours of this requirement.
² Credits beyond 20 semester hours may be counted as unassigned courses.

In California the minimum requirements of special teachers are two sessions of training comprising 4 units each in mental hygiene, phonetics, and the correction of nervous speech disorders and 100 hours of practice teaching in the field.

INSTITUTIONS OFFERING TRAINING

The following is a list of institutions mentioned by those who answered our questionnaire as furnishing special training for teachers:

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University of California, Berkeley, Calif.; San Francisco State Teachers College, San Francisco, Calif.; Colorado State Teachers College, Greeley, Colo.; Northwestern University, Chicago, Ill.; University of Iowa, Iowa City, Iowa; Johns Hopkins University, Baltimore, Md.; Curry School of Expression, Boston, Mass.; Swift School for Speech Correction, Boston, Mass.; Emerson School of Oratory, Boston, Mass.; Detroit Teachers College, Detroit, Mich.; Lewis School, Buena Vista, Mich.; Michigan State Normal School, Ypsilanti, Mich.; University of Michigan, Ann Arbor, Mich.; University of Minnesota, Minneapolis, Minn.; University of Montana, Missoula, Mont.; Miami University, Oxford, Ohio; Ohio State University, Columbus, Ohio; Western Reserve University, Cleveland, Ohio; Vassar College, Poughkeepsie, N. Y.; Hunter College, New York, N. Y.; College of the City of New York, New York, N. Y.; Martins' Institute for Speech Correction, Ithaca, N. Y.; University of Buffalo, Buffalo, N. Y.; Oswego State Normal School, Oswego, N. Y.; Brockport State Normal School, Brockport, N. Y.; Cornell University, Ithaca, N. Y.; Columbia University, New York, N. Y.; Fordham University, New York, N. Y.; New York University, New York, N. Y.; University of Pennsylvania, Philadelphia, Pa.; Temple University, Philadelphia, Pa.; Pennsylvania State College, State College, Pa.; Lehigh University, Bethlehem, Pa.; National School of Oratory, Philadelphia, Pa.; Milwaukee State Teachers College, Milwaukee, Wis.; University of Wisconsin, Madison, Wis.

TRAINING NEEDED

The replies to the inquiry as to the minimum time needed for special training were probably colored by the personal experience of the teacher answering the question. Five mention a six weeks' course; one, 10 weeks; three, 12 weeks; nine, 2 summer sessions; five, 1 semester; twelve, 1 year; five, 2 years; and four, 4 years. The last replies refer to a major course and do not represent a minimum time for special training.

These opinions, together with the requirements previously given, would seem to indicate that special education for speech correction aside from general education, and also a general teaching experience, should extend from a minimum of two summer sessions to two years of special training. With increase in the supply of special teachers this minimum should be raised.

SALARIES

The salary paid to teachers of speech correction is the same as for other special teachers except in 14 cities, where it is higher. In three of these cities it is \$100 more per year. The range of minimum

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salaries is from \$1,100 to \$3,000 and of maximum salaries from \$1,500 to \$3,830, with \$4,500 in one city for the supervisor. In cities of 10,000 to 30,000 population the minimum ranges from \$1,300 to \$1,800 and the maximum from \$1,800 to \$2,100. The average of the minimum salaries in the larger cities (over 30,000) was \$1,560 and the average of the maximum salaries, \$2,400.

METHODS

Age of pupils.—In 48 school systems speech-defective work is begun in the kindergarten or at 5 years of age; in 20, in the first grade; and in 2, at 7 years. Best results are obtained by 3 in the kindergarten, by 28 in the primary grades, by 11 in the elementary grades. Two find from 10 to 15 years the best period; one, 12 years; and one, 12 to 18 years. A few of those who furnished information on this point said "it depends," and they probably meant that it depends on the kind of defect which is dealt with.

Classification of pupils.—All but 6 cities make a formal classification of pupils for instruction as regards the nature of their defects, and 2 of the 6 state they do not do so because their work is all individual. Various terminologies are reported for these classifications, of which the simplest is that into "phonetics" and "stuttering" or "emotional and mechanical." Examples of more elaborate classifications have already been given. Some schools group their children also by ages, as "first and second year lispers, first and second year stutterers, seventh and eighth year lispers, and seventh and eighth year stutterers, etc." One teacher states: "It seems inadvisable to handle stutterers with others beyond the third or fourth grade. Lisps, voice, letter or word substitution, oral inactivity (unless severe) may be taught together. Extreme cases of any of these need individual attention. When such is not possible they must be grouped with others of like degree of difficulty and of the same diagnosis." Doubtless other cities follow similar methods of grouping for teaching purposes.

Physical examination.—In 35 cities speech-defective pupils are given a special examination with reference to any conditions affecting speech; in 3 such an examination is advised; in 4 it is given in special cases; in 9 the pupils have routine medical examinations; in 1 it is given "rarely"; and in 11 no examination is given. When it is considered that the general health always affects the voice, and especially the utterance of those with speech defects of nervous origin, one must wonder at any neglect of examination for conditions possibly affecting health.

Class or individual instruction.—Five cities report that they use class instruction only, and five teach only individually. The remain-

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ing 54, which furnish information, give class or group teaching, with individual lessons where needed. One city reports individual instruction of all cases of stuttering. The following are the average size of classes reported:

Size of class	Number of cities reporting
5, 6, 8.....	2 each.
10.....	2 each.
11, 12, 15, 17.....	2 each.
2-6, 2-8.....	3 each.
2-10.....	2 each.
2-15.....	2 each.
3-4, 3-5.....	2 each.
3-6.....	2 each.
3-7, 3-8.....	2 each.
3-10.....	2 each.
3-18, 3-20.....	1 each.
4-5, 4-6.....	2 each.
4-10.....	2 each.
4-15, 5-10.....	3 each.
5-12.....	2 each.
6-7, 6-8, 6-12, 6-15, 8-12.....	2 each.
10-12, 10-15.....	2 each.
10-20, 10-25, 12-15, 12-18, 12-25.....	1 each.

One city sets a minimum of 10, one a maximum of 12, and one of 15.

Time.—The time per week given to individual lessons is reported as 20 minutes, 45 minutes, 40 to 80 minutes, and 1 to 2 hours. For class exercises, 10 cities report one 30-minute period per week; 4, a 40-minute; 3, a 45-minute; 14, a period of an hour; 1, an hour and a half; 2, two hours, and 2, two to three hours. One city gives the period as from 15 to 30 minutes; one, 30 to 120; one, 40 to 60; one, 15 to 60; one, 30 to 60; one, 60 to 90; two, 60 to 120. In one city there are two 15 to 25 minute periods; in one, two 20-minute periods; in four cities there are two 30-minute periods; and in one, 2 half days.

To the question as to the "average number of weeks corrective instruction is given per pupil," 28 correspondents ventured an answer. Of these, 19 probably thought the inquiry referred to the number of weeks per year of instruction per all pupils, as the number given corresponded closely with that for the school year, or it may be that pupils are, on the average, taught for a year. One teacher answered 4 weeks; one, 9½ weeks; one, 15; one, 18; four, 20; and one, 25 weeks. More specifically, one stated from 3 weeks to 2 years, according to defect and progress; one that "they may stay from 2 to 3 years if making progress"; one said that for phonetic defects the time averages from 3 to 6 months, and for stutterers, 1 year. Another answered "stutterers, 1 to 2 years; others, 1 year or less." The period

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mentioned in these replies bears no relationship to the time given to the pupils in each week. One teacher remarked:

"Cases vary so that it is impossible to say. The younger the case, the quicker the correction is made. It is absolutely necessary to avoid developing over-self-consciousness in regard to speech; hence the case must never be allowed to feel that he can not meet certain requirements. This necessitates easy transitions from incorrect to correct speech habits. The teacher must understand children as well as the process of correction. It is our policy not to dismiss a case until the correction has become a habit. Severe cases are held till graduation from the eighth grade, even when speech seems quite normal."

The prolonged training until the corrected speech becomes habitual is in marked contrast to the brief courses offered by private institutions (so often the only schooling available) where, on account of the excessive cost, the pupils are trained for only a few weeks and so often without lasting results.

The methods that are used in the instruction of stammerers and stutterers are not easily expressed in a few words, but the following replies on this subject are quoted as characteristic:

(a) "Each case requires individual attention and individual methods. All pupils, however, need to be taught how to relax mentally and physically, and all need to be given numberless experiences of clear, fluent speech in normal speech situations."

(b) "Pupils are trained to habits of bathing, sleeping, eating, playing, and working regularly. On the mental side they are taught to cultivate calmness and happiness; to adjust themselves to life; to acquire emotional control; and lastly, to secure correct speech control."

(c) "We aim at re-education of habits toward independence and confidence in self, slow speech, and ease in speech and action."

Securing the practice of correct speech.—Mere instruction gets nowhere in work with speech-defective pupils. The following are some of the replies regarding methods of securing the practice of what is taught:

"We send a letter to parents explaining the difficulty and inviting them to the class."

"We demand that the mother attend class frequently."

"Each pupil has a notebook with lessons for home practice. We have little difficulty."

"Reexaminations and tests."

"By securing cooperation of parents and regular teacher."

"Appeal to pride of pupil."

"Classroom teacher is asked to check to see that the rules taught in speech correction are carried over and used in daily recitation."

"Enlist pupil's interest, whereupon home and school cooperation follows."

"Mother always called for cooperation. Older sister or brother or neighbor sometimes helps."

"Parents are taught how to assist."

"Home visitations and conferences, i. e., adult education."

"Encourage all possible forms of application outside."

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With reference to the importance of both school and home cooperation one correspondent writes: "This has recently been brought home to us in a striking manner. Through the efforts of one of the principals not only the mothers, but the teachers as well, have become interested in the work, and through their combined efforts we have accomplished in one month in that school what is usually done in three months at other schools where cooperation does not exist so extensively."

Following cases.—Cases of speech defect which have been discharged are followed by the special teacher in 60 cities. In two, the classroom teacher is asked to report concerning the speech habits of these children. One superintendent stated that the teaching force was too small to allow the special teacher to observe the children after correction. Two cities are just beginning this work, and the remainder did not answer with regard to this matter.

As to the length of time the pupils are observed, 12 teachers answered, "as long as they are in school"; 4, "while in elementary grades"; 9, "until correction is assured"; 1, "until steady progress is assured"; 3, "about 2 years"; 6, "at least 1 year"; 6, "1 year"; 1, "6 months"; 2, "1 semester"; 1, "2 months"; 2, "1 month"; 2, "depends on case." One teacher answered, "We check up through the parents, grade teachers, and playground instructors, and do not release the child from the speech class until his speech is satisfactory to all." In two cities this "work is just begun," and the remainder did not answer the question.

Cleft palate and delayed speech.—In 54 cities cases of cleft palate are taught with fair results in 15 and good in 19; they improve in 9. Results were not reported by the other cities.*

In 52 cities children with delayed speech are included in speech work, with good results in 25, fair in 15, and poor in 8. A number of correspondents remark that results depend on the mentality of these cases.

Foreign accent.—Cases of foreign accent are taught in most cities, especially the worst cases. The number taught is often limited by the number of special teachers.

RESULTS

The results of work with speech-defective children will depend to a large extent on the nature of the cases as well as on what is done for them. Only statistics covering a considerable number of cases can be of much value, and as some defects are much more easily corrected

* Pupils with unrepaired cleft palate can improve their speech, while those who have had the defect treated surgically or by a plate may need to regain their use of language.

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than others, a classification by defects is needed to render statistics of value. The following are estimates from a few cities:

Defects	Per cent corrected	Per cent improved
No. 1:		
Stuttering.....	9.76	25.29
Defects of articulation.....	19.67	37.21
No. 2:		
Stuttering.....	44	(1)
Other defects.....	95	(1)
No. 3:		
Stuttering.....	32.9	59.8
Other defects.....	39.8	52.3
No. 4:		
Stuttering.....	39	(7)
Other defects.....	67	(9)
No. 5:		
Stuttering.....	29.6	67
Lisping.....	44.2	55
Defective phonation.....	13.6	88
No. 6:		
Stuttering.....	20	78
Lisping.....	30	63
Defective phonation.....	20	77
No. 7:		
Stuttering.....	30	60
Letter substitution.....	95	5
Lisping.....	75	20
Oral inactivity.....	60	30
Delayed speech.....	20	60
Cleft palate.....		75
	<i>Per cent corrected at discharge</i>	
No. 8 (16,713 cases):		
Stammering.....	27.0	60.0
Lolling.....	36.5	4.8
Lisping—		
Lingual protrusion.....	40.0	60.0
Lateral emission.....	36.0	56.0
Nasal emission.....	30.0	65.0
Acute defective phonation.....	50.0	40.0
Acute foreign accent.....	30.0	60.0
Dialectical intonation.....	30.0	66.0
Nasality.....	21.0	42.0
Denasalization.....	20.0	63.0
Organic defects (cleft palate, tongue-tie, polypoidal growths, hypertrophied tonsils, dyspnoea, aphonia, monotone, chorea, impaired hearing).....	6.0	40.0

¹ Practically all ² And possible correction. ³ Record not kept but probably 75 per cent.

All cases (Group No. 8): Corrected, 36 per cent; improved, 52.2 per cent; not improved, 4.6 per cent; and discharged for other cause, 7.2 per cent.

The Department of Public Instruction of Wisconsin furnishes the following combined statistics for 20 cities of that State having special classes in 1929-30:

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Total enrollment in classes, 6,150^o

Disorders	Boys	Girls
Stuttering.....	380	191
Vocal inactivity.....	547	243
Lateral emissions.....	91	57
Nasality.....	81	57
Hoarseness.....	31	14
Left palate.....	10	6
Lisping and letter substitution.....	2,356	1,522
Miscellaneous.....	176	76

Results	Per cent corrected	Per cent improved
Stuttering.....	23.5	59.0
Others.....	39.0	47.0

Doubtless some of the very high percentage of cures (this was the term used in the questionnaire), especially of stuttering, must be taken with a few grains of salt; but even if 25 per cent of stutterers are cured (which is evidently the case) and 50 per cent are improved, a very fine piece of work is accomplished. More corrections can be expected in cases of other defects.¹⁰

EQUIPMENT

Unlike special classes for some defectives, the needs in the way of space and equipment for speech correction are, fortunately, very small. There should be a room set apart for the use of the speech-correction teacher at the time of her visit, and this should be in a quiet part of the building. It need not be large, as the classes are never very large. Other equipment is negligible. The teacher, herself, is of most importance.

SPEECH CORRECTION AND SPEECH IMPROVEMENT

As noted elsewhere, it is not easy to draw the line between pupils urgently in need of speech correction and the very considerable number whose speech could be improved. The speech-correction teacher, sensitized by training to good and bad speech, will always place a higher percentage of children in both of these groups than will the average teacher. While mere speech improvement may seem to many of the nature of over-refinement in public-school education, it might well be cultivated at the partial expense of some work that is now carried on along other lines. The teacher of speech-defective

¹⁰ In 1929, 311 children attended the centers for stammerers in London, England. Twelve per cent were discharged as cured, 18 per cent as provisionally cured, and a number of others were greatly improved. In at least one center cases considered cured and old cases are required to report once a month. "These children are taken through their paces, questioned as to their daily speech exercises, and inspired with confidence by the knowledge that help and advice are at hand, if required, at these monthly meetings. Thus is their cure assured."

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children whose time is not fully occupied by such pupils should also be a teacher of speech improvement.

Speech is employed in connection with most subjects of the school course, and speech improvement is not so much the function of the special teacher as of every teacher. With the lengthened period of professional schooling, the teacher's own speech may well be given attention, along with training in the methods of improving the utterance of her pupils.

Professor Stinchfield finds 16 per cent of Mount Holyoke freshmen with defective speech, and certainly pupils entering teacher-training courses are not better off in this respect. If the teacher is to set a good example it is evident that many of those in training need special training.

CLASSES AT WORK

A visit to a class for speech correction, taught by a teacher who knows her business, is a most interesting experience. Aside from the deaf and blind, who are not often found in public schools, no group of children appeal more to the visitor than these.

The speech-defective child is peculiar in that he is not hampered by his means of obtaining knowledge (his sense organs) but in his ordinary means of communication. So also is the mute, but the mute is mute. He makes no effort at speech and is not expected to be vocal. The speech defective is expected to use oral language and, in school, is more or less self-impelled or otherwise driven to do so. Even if he does not have to talk he feels himself peculiar in not doing so; and when he does speak, he is, or feels he may be, a source of merriment. No other handicapped child is laughed at, and to be laughed at by one's schoolmates is a sad experience.

We are always impressed by numbers. One child who lisps or stutters may make little impression, but when one has a dozen "lispings, stammering tongues" together and realizes that they all come from only a few schoolrooms, the matter of speech defects becomes impressive. The visitor is at once aware that these defectives differ greatly among themselves and also that they will not be cured or corrected in one or even a dozen lessons. Visual defectives also differ, but usually within a day the defect is corrected so far as this can be accomplished.

The visitor to such classes becomes also strangely conscious of his own speech and soon finds himself wishing that all school children might be exposed to the perfection of utterance displayed by such special teachers.

We learn largely through imitation, and the speech of every pupil should be the better for such contact. One feels also that something

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is missing in the classroom, for there is none of the tension involved in so much of the usual recitation. The speech corrector fails if he does not secure relaxation in an atmosphere of calm.

Each child is made to understand his special difficulty, and besides the general class exercises and the participation in speech games, each individual is encouraged to try his doubly unruly member on his special vocal gymnastics.

There is ample time for the younger children to wrestle with their difficulties but at high-school age the speech-defective class becomes more exciting to the visitor. The pupils are nearing the finish. With such vocal equipment as they can command they will soon be thrown into situations where speech will be considered according to its dollars and cents value by the callous, commercial world. The speech histories of these students were most interesting when one heard them speak with comparative ease, even though not yet discharged as cured, and the climax was reached when a boy was asked to lead in an impromptu debate. According to the records he had been one of the worst cases of stuttering. He, however, entered into the game with an alacrity that was infectious and offered the other pupils the privilege of choice as to sides in the contest. The teacher explained that he was one of the leaders in the debating society. The speech of some of the debaters was not perfect; but on the whole, it was better than that exhibited by most public speakers who are not considered speech-defective.

In this connection the following brief accounts of individual cases furnished by Miss Ellenberger of the Johnstown (Pa.) schools, should be of interest, especially to those who have not had experiences with such pupils.

This year, Billy, a little 6-year-old boy, had a very bad stammer when he entered school in September. A terrible fear of talking seemed to possess him. An intensified fear was apparently the cause of his speech difficulty. When he began to speak, no difference what he would want to say, he would begin with, "Please, please," and then his mouth would quiver and he would continue stammering. He was very much afraid to take part in any games where he would be called upon to do any talking on his own responsibility. Special effort was made to inspire confidence, to show him that he could talk, and now, even after so short a period of training, he speaks very well, with scarcely a sign of a stammer. He will now take part in any speech game.

James, a bright little fellow of 6 years, had a very bad case of defective phonation caused by a partial paralysis of the speech organs, following a very severe case of whooping cough. He was very self-conscious. Even in four months his speech improved very much, he became less self-conscious and mingled with the other children. It took several years of drill and practice to correct all his speech difficulties, but most of the time he had only one lesson per week. When he was dismissed he had a good speech, had gained confidence in himself, and was able to take his place in all activities open to a bright boy of his temperament.

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His surroundings have always been very favorable, and that has helped greatly in his progress.

Sara, a girl with a cleft palate, was 10 years old when she entered the speech class. At that time she was exceedingly sensitive about her appearance as well as her speech. When a stranger came into the room, she would cover her mouth with her hand, and on her face most of the time there was an expression of sadness and worry. She was very faithful in her attendance at the speech class and in her practice of voice exercises. After a time the sadness left her face. She no longer was sensitive, but shows a confidence in herself, which helped her over the hard places. She said she had more happiness than she ever realized would be hers in her school career.

III. STATE DEPARTMENTS OF EDUCATION

The State Department of Education of California has a bureau of correction of speech defects and disorders, with a specialist and two assistants. The State Department of Wisconsin has a part-time specialist.

We quote from the recent reports of the chief of the bureau of correction of speech defects, Miss Mabel F. Gifford, regarding what is done in California:

During the last biennium the supervision of this department was under the division of special education. * * *

At the beginning of the last biennium it was decided that instead of attempting to furnish State aid with the limited amount of money available, which would cover a few counties, that this budget should be used for two field workers, one to cover the northern part of California and the other southern California, for the purpose of introducing and promoting the work, and particularly for the purposes of interesting teachers to come to summer sessions and receive training so that speech classes could be established throughout the State.

The further activities of these field workers included (a) supervision of teachers who had already taken the training courses and were doing their practice teaching; (b) conferences with school people, including county and district superintendents, supervisors, principals, teachers, and county trustees; (c) talks at teachers' meetings, institutes, and teachers colleges; (d) talks to parents at parent-teacher association meetings, parent groups, clinics, and private conferences; demonstration lessons and individual examinations; (e) conferences with coordinating agencies, such as boards of health, nurses, doctors, boys' club leaders, and behavior clinics; (f) talks to the public at service clubs, dinner clubs, etc.; (g) supervision of heads of city departments, county departments, and institutions.

In November, 1929, the State department of education placed the children with speech defects on the same basis as the crippled, deafened, and the blind, so that they would receive from the State the same reimbursement for the cost of their education. The annual reimbursement amounts to \$200 (half from the State and half from the county) for each unit of average daily attendance.

June, 1930, shows classes for speech correction conducted in 33 school districts in California. The size of the districts vary, San Francisco and Los Angeles having the largest speech departments, with around 3,000 cases handled in each city, down to Ashview, where in a 1-room school the teacher gives help to three speech cases. The total school enrollment in the 33 districts amounts to approxi-

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mately 140,856. Two per cent of this enrollment have some type of nervous speech disorder, such as stammering or nervous hesitation, and 4 per cent some articulation defect.

In many cases the district has not been thoroughly surveyed, as the speech teacher can not afford to take time from her instruction periods and finds it futile to add to her already filled waiting lists. So these percentages may be considered as below what a thorough survey would show.

The two field assistants who have been working with the State bureau for the past year have aroused much interest in this work. Surveys have been made in some cases of entire counties. Reports of 65 of these surveys have been received in the State office for districts where no speech work has yet been started. The approximate enrollment covered by these reports is 79,600. Three and one-half per cent, or 2,786, are listed as nervous-speech cases and 5,223, or 6 per cent, as needing help for articulation defects. These percentages are considerably larger than those reported where speech work is already organized, due to the fact that the cases have accumulated, as the difficulty is seldom outgrown.

There are about 1,500,000 children enrolled in the schools in the State of California. If we deduct from this the enrollment in districts where speech-correction classes are being conducted, and calculate the number of speech cases by the percentages arrived at from over 65 survey reports, we find that there must be in this State 45,000 children with some type of nervous speech disorder, and at least 78,000 with some articulation defect, who are receiving no corrective speech work whatever.

Thirty-six speech teachers are giving full time. They hold State credentials for corrective speech work (or will at the close of the summer session). Rating their training and personality qualifications on a scale of 5, they average up to 4 points. Much more intensive training is necessary for a good speech teacher than has hitherto been required.

Ninety-four teachers are giving part time, varying from three to five hours per week. Some of these have credentials and fair training, some are inadequately trained, and many are doing this practice teaching toward their credentials. These conditions are improving and will no doubt continue to do so, as the State reimbursement for speech classes will not be given, after September, 1931, for any speech class unless the teacher holds a State credential.

Training for corrective speech work is now given at the summer sessions at the University of California, Berkeley, and at the State Teachers College in San Francisco. Two summer sessions, covering 12 units of work and 100 hours of practice teaching, besides definite personality qualifications, are necessary in order to secure State credentials. The State Teachers College has recently planned to introduce this as part of its regular course. Plans are being made with the University of California at Los Angeles to introduce regular training courses there also. The department realizes that much more training than this is essential, and expects shortly to raise the requirements for the State credential. The minimum requirements include two summer sessions of training, comprising 4 units each in mental hygiene, phonetics, and the correction of nervous speech disorder, and 100 hours of practice teaching in the field.

In Los Angeles the speech work is conducted by special rotating teachers; in San Francisco, partly by circulating teachers and partly by teachers holding special "opportunity" classes in the schools. In small communities much of the speech work is conducted by after-school classes.

An experiment in having in the rural districts a circulating speech teacher who will handle five districts has just been organized.

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In Sacramento the superintendent is planning to introduce the work into four centers, transferring the children who need this work to these schools.

Whatever organization plan is followed, it has been found essential that the cooperation of the classroom teacher, the principal, the parents, and the home be secured. Time must be taken for conferences and visits, or good results can not be achieved.

The State Department of Wisconsin reports that, while no special surveys regarding speech defectives throughout the State have been made, the number of defective children, together with the nature of their defects, is reported by the cities which have special teachers. The report for 1929-30 for 20 cities is found on page 19 of this bulletin.

The State Department of Connecticut has brought together and published statistics on the prevalence of speech defects in school children of that State, and the State department of Iowa reports a survey in progress with regard to the frequency and nature of speech defects.

In California, Indiana, Minnesota, Michigan, Pennsylvania, Washington, and Wisconsin, State aid is offered to local schools which establish special classes for speech-defective pupils. In Minnesota "the allocation of State aid to public schools maintaining special classes for speech defects is \$1,350 per teacher." In Washington, school districts receive five days of attendance money for each day of attendance of children placed in special classes. In Pennsylvania "Every first-class school district employing a legally certified corrective speech teacher will receive 25 per cent of the minimum salary of an elementary teacher in addition to the regular appropriation for such a teacher. Every second, third, and fourth class school district will receive 30 per cent of the salary of an elementary teacher, additional appropriation. The minimum salary of an elementary teacher in a first-class district is \$1,200 per annum, and in second and third class districts it is \$1,000 per annum. First, second, and third class districts, therefore, receive \$300 additional appropriation. The minimum salary of an elementary teacher in a fourth-class district is \$100 per month. The amount of the additional appropriation which a fourth-class district would receive is dependent upon the length of the school term."

THE PROBLEM OF THE SMALL COMMUNITY

It will be noted that even in the few States in which the State department of education is offering stimulation and assistance in local provision for special teaching of speech-defective children, the communities employing a special teacher do not, except in California, have a school population below about 2,000. Granting that 3 per cent, or 60 pupils, are in urgent need of special teaching each year

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and that classes are limited to 4 pupils, which would probably be sufficient in a small school where there would not be many of about the same ages with similar defects, this would give 15 classes per week with the remaining periods per week devoted to special cases.

In communities below 10,000 population it is evident that the speech teacher must either be peripatetic and employed by more than one school district or she should be able to teach other classes. She might well be employed if in nothing else, in improving the speech of average children, as in classes of reading.

The speech-correction teacher has a training that helps fit her for the teaching of hard-of-hearing children, and as 1 to 2 per cent of school children need special training in lip reading or speech reading until they acquire this art, the total number of defective children of both kinds in a small school system may be sufficient to keep her busy.

It will be noted that many of those who are carrying on work in speech correction have had only one or two summer courses, and two courses, with 100 hours of practice teaching, is the minimum State requirement of California. Moreover it is highly desirable that speech teachers shall have had considerable experience as regular teachers. It follows that in small communities which do not combine with others to employ a special teacher the problem of supplying a teacher for the speech defective may be solved by sending a regular teacher who is interested in such work to a summer school for two or more sessions, paying her a salary accordingly, and having her spend as much time as is needed in the training of the children in need of speech correction. This would be much better than hiring a peripatetic teacher for a few weeks each year. The cost of the latter should be greater, and the practice of what is taught is likely to be soon dropped by the pupils, a result which entails a further waste of funds.

The methods employed to promote this work in the smaller cities and districts of California will be watched with great interest.

The prospect of the speech-defective child in small communities and rural regions is pathetic indeed and will remain so until some such plans are worked out for aiding him.

SUMMARY

A very large number of school children have defects of speech. Their defects may prove a very serious handicap if not a source of misery during the period of their schooling and in after life.

Their conditions can, in a large measure, be cured or improved by proper speech instruction. The number helped will depend, however, not only on the character of the special instruction but on the cooperation of school officials, teachers, and parents.

THE SPEECH DEFECTIVE CHILD

While much is being done for them in larger cities, these unfortunates receive practically no attention elsewhere. Most is done for them in smaller communities where assistance is offered by the State departments of education.

Where special teachers can not be employed very much can be accomplished by regular teachers trained for part-time service along this line. Better speech in all pupils will depend on better schooling of all teachers to this end.

APPENDIX

RECORDS AND OTHER FORMS

Special records for each child are used by all but 10 cities, and in most of these case histories are kept, especially for the more serious cases. Sample record forms are given herewith.

Form No. 103

PUBLIC SCHOOLS OF THE DISTRICT OF COLUMBIA SPEECH CORRECTION CLASSES

School Code No. _____ Grade _____

Name _____ Date of birth _____
Address _____ Nationality _____
Complaint _____
Present condition _____
Former history _____
Family history _____
Former treatment _____
Local examination _____
Diagnosis _____
Date of admission to Speech Class _____
Date of discharge _____
Result _____

Special Teacher.

BOARD OF EDUCATION—CITY OF NEW YORK

DEPARTMENT OF SPEECH IMPROVEMENT

PUPIL'S SPEECH RECORD

Name _____ Date _____
Address _____ Race _____
Age _____ School _____ Grade _____
Nationality, father _____ Mother _____
Speech defect _____
Characteristics _____
Apparent causes _____
Former treatment _____
Recommendations _____

(Over)

[Reverse side]

Consultations _____
Disposition _____

Teacher

Form 46

CORRECTIVE SPEECH RECORD

ORLEANS PARISH SCHOOL BOARD

Last name _____ First name _____ Address _____
School _____ Grade _____ Birth date _____ Male _____ Female _____
City _____ Where born _____ State _____ Native country, father _____ Native country, mother _____
Mother's name _____ Father's name _____ Occupation of parent _____
Physical _____ Vision _____ Hearing _____ Other _____
Defect _____ Degree _____ Parent's attitude toward disorder _____
Other speech defects in family _____
Age disorder appeared _____ Early speech _____
Speech Examination date _____ Medical examination date _____
By whom _____ By whom _____
Date of admission _____ Readmission _____ Date of discharge _____ Second discharge _____
Reason for discharge _____
Result of treatment _____

C. S. Teacher.

(Over)

THE SPEECH DEFECTIVE CHILD

Playmates:

- a. Temperaments.....
- b. Treatment of patient.....

Teachers, especially first grade:

- a. Temperament.....
- b. Discipline.....
- c. Relation to (friendly or hostile).....

Strong likes and dislikes..... Foods.....

- Why.....
- School..... School subjects.....
- Persons..... Play.....

DESCRIPTION OF DEFECTS (STUTTERING OR STAMMERING)

1. Can the stammerer produce speech.....
2. Does he start with movements other than speech or with sounds.....
3. Does he block on a sound.....
4. Repeat first syllables.....
5. Repeat or block on special words or sounds.....
6. Where are the spasms observed, tongue, lips, glottis, diaphragm?.....
7. Do these points remain constant?.....
8. Is speech rate rapid or slow?.....
9. Is there inflection in the voice?.....
10. When did the defect begin?.....
11. Has he improved or grown worse?.....
12. What conditions modify the control?—e. g., presence of strangers, home, presence of own sex, opposite sex, etc.....
13. Did the patient ever have complete arrest of condition?.....
14. Was relapse severe or mild?.....
15. What brought about both?.....
16. Give patient's memory of first experience with difficult speech.....
17. Who first called it to his attention?.....
18. In what manner?.....
19. What is his attitude toward it?..... Pessimistic? Worried? Indifferent?
20. What has been the attitude of people around him?.....
21. Has patient ever had any other types of defect of speech (lisp, etc.)?.....
22. Are there any tics present?.....
23. What muscles involved?.....
24. Are they slow or quick?.....
25. Are they constant in form?.....
26. Do these tics occur before....., during....., after.....
stammering?
27. What special topic of conversation is likely to produce them?.....
28. Does looking at the patient cause them to become more frequent?.....
29. Does questioning concerning the muscular spasms cause a more frequent occurrence?.....
30. Does he have nightmares or terrors?.....

PSYCHOBIOLOGICAL

Aggressiveness:

- Retiring.....
- Timid.....
- Bold or overbold.....
- Quarrelsome.....

Anger:

- Normal or abnormal.....
- Amount..... Quick..... Slow.....
- Occasion it is called forth.....

Fear:

- Afraid of dark.....
- Reaction.....
- Presence or absence of night terrors, nightmares, other fears.....

Curiosity:

- Constructive or destructive.....

Disgust:

- Normal or abnormal.....

Estimate of self.....

Amount of Imagination:

- Day dreaming.....
- Interests.....
- Intellectual trends.....
- Ideals.....

THE SPEECH DEFECTIVE CHILD

TEACHER'S MEMORANDUM FOR CLASSROOM

Sample case

Case No.	Sex	Age	School history	Difficulty	Onset	Habit data
1	Boy...	11	Repeated third and fourth grades.	Stealing. Can not fix attention in school.	Third grade, 9 years.	Only child; petted and shielded by mother. Has everything he wants. Good living arrangements.

SHEET 2. (Same continued)

Associated facts	Suggested modification	Subsequent notes
Intelligence normal. Movies five nights a week. Fond of bandy adventures on the screen. Dreams of robbing trains.	School emphasis on positive facts. Patient made special messenger for truants. Athletics.	Patient is now in sixth grade. Not popular with the boys. No further stealing reported.

SELF-EXAMINATION FORM FOR PUPILS

LONG BEACH PUBLIC SCHOOLS

SPEECH CORRECTION

MAKING MY NEW SELF

*One brick and then another and the highest wall is laid,
One thought and then another and my new strong self is made.*

(Check 1 column every day, placing date at the top of the column)

NAME DATE

DATE											
I relaxed 3 times											
I kept calm all day											
I took things easy											
I slept 10½ hours with windows open											
I took a rest period											
I drank no tea or coffee											
I drank 4 glasses of water											
I ate all the vegetables											
I ate fruit for breakfast											
I practiced with my team											
I exercised outdoors											
I went swimming											
I made my own bed and tidied my room											
I recited when I didn't have to											
Total for month ending											

THE SPEECH DEFECTIVE CHILD

BIBLIOGRAPHY

A Working Bibliography for the Study of Speech Disorders, prepared by Herbert Edgar Rahe, of Butler University, was published as a supplement to the Journal of Expression, Volume III, No. 1, March, 1929. It contains 156 classified references. Those desiring an extensive list are referred to this bibliography.

The following books will be of interest to the general student:

Bluemel, C. S. Mental aspects of stammering. The Williams & Wilkins Co., Baltimore, 1930.

Treats of the underlying causes of stammering and goes into detail with reference to treatment, especially in young children.

Borden, Richard C. and Busse, Alvin C. Speech correction. F. S. Crofts Co., New York, 1925.

Deals concretely and in detail with the special mechanisms of speech and methods of overcoming defects in this mechanism. Only eight pages are given to stammering.

Fletcher, John M. The problem of stuttering. Longmans, Green & Co., New York, 1928.

A detailed discussion of the causes of speech defects of nervous origin.

Peppard, Helen M. The correction of speech defects. The Macmillan Co., New York, 1925.

Prepared especially for teachers though parents may also profit from its use. Gives methods and devices for the correction of various common defects.

Raubicheck, Davis and Carll. Voice and speech problems. Prentice-Hall, Inc., New York, 1931.

Devoted to general speech-improvement but contains chapters on speech defects. There are many pages of exercises.

Stinchfield, Sara M. Speech pathology and methods in speech correction. Expression Co., Boston.

Intended especially for teachers. Discusses the social nature of speech; tests and measurements for speech-defective persons; and furnishes exercises for speech correction.

Swift, Walter B. Speech defects in school children. Houghton Mifflin Co., Boston, 1918.

A general view of the subject including the need for speech improvement as well as correction of specific defects.

Ward, Ida C. Defects of speech. E. P. Dutton & Co., New York, 1923.

Intended primarily for grade teachers who are likely to come across cases of speech defects among their pupils. Gives practical exercises. There is a chapter on cleft-palate speech and a brief one on stammering.

[As an aid to teachers without special training, parents, and others interested, this office will issue a publication containing material which, it is hoped, will be helpful in the correction of speech defects.]